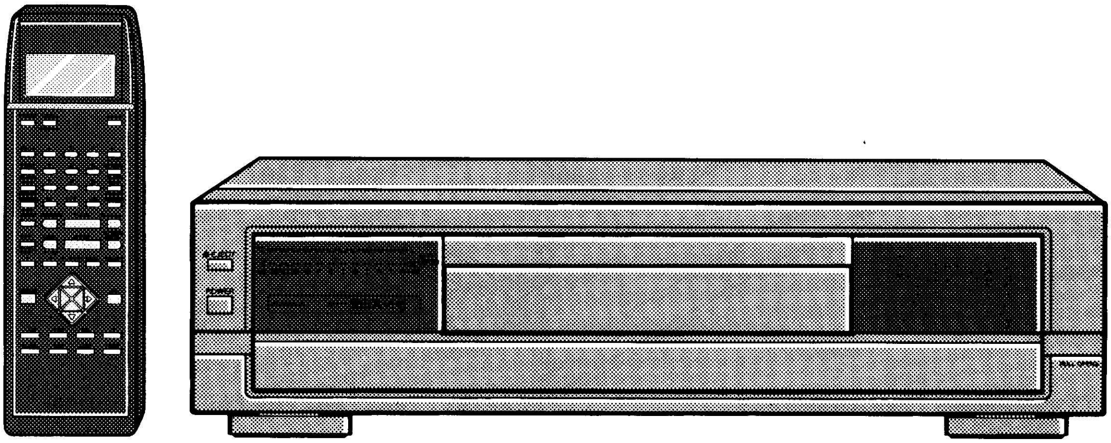
SANYO

Service Manual

Video Cassette Recorder

VHR-S700 series
VHR-S800 series



VHR-S700G

S VHS 625 VHS PAL

Hi-Fi HQ

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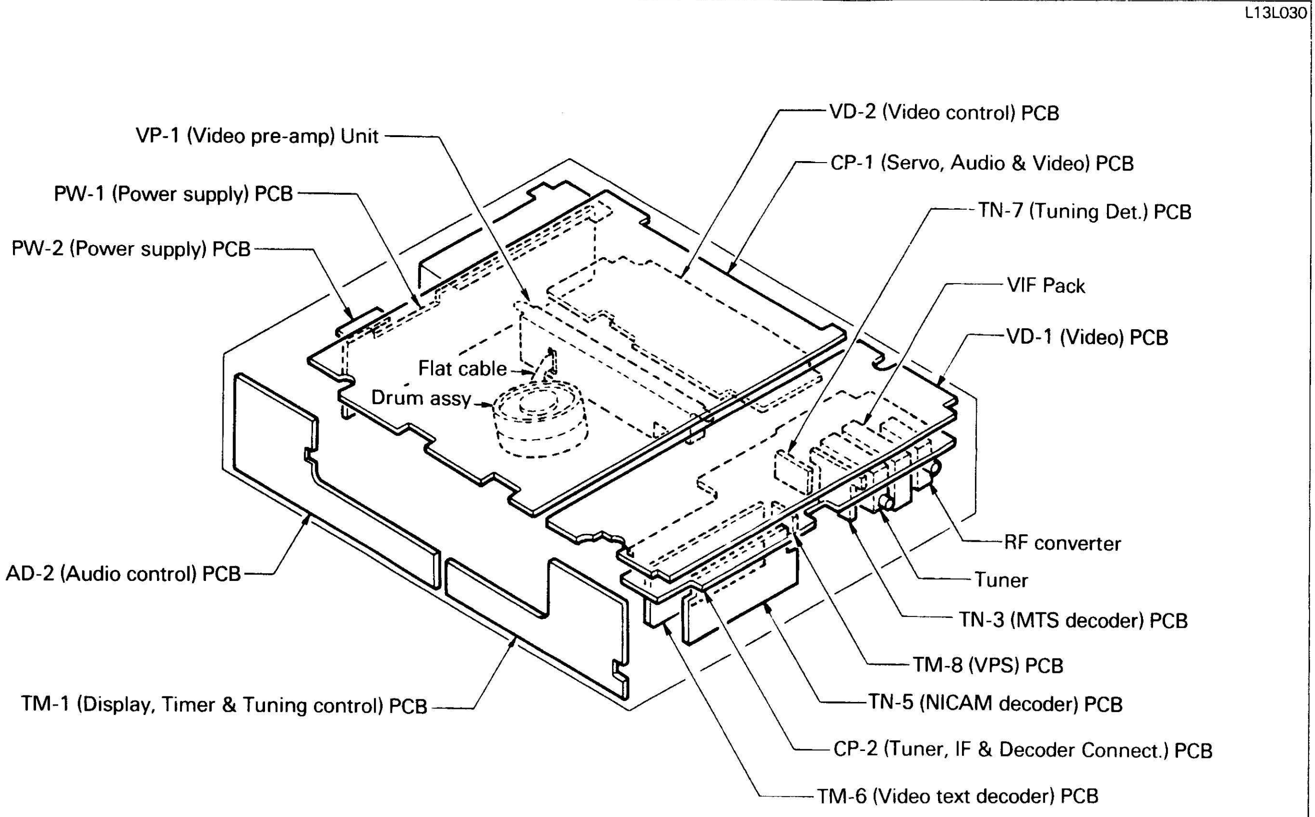
QP4SV/G, ES, SP, QP4S/I, E, A, ME

REFERENCE No. WM-530775

1. CIRCUIT BOARD LOCATIONS

1-1. MAIN BOARDS


L13L030
VD-2 (Video control) PCB
VP-1 (Video pre-amp) Unit
CP-1 (Servo, Audio & Video) PCB
PW-1 (Power supply) PCB
TN-7 (Tuning Det.) PCB
PW-2 (Power supply) PCB
VIF Pack
VD-1 (Video) PCB
Flat cable
Drum assy
RF converter
AD-2 (Audio control) PCB
Tuner
TN-3 (MTS decoder) PCB
TM-8 (VPS) PCB
TM-1 (Display, Timer & Tuning control) PCB
TN-5 (NICAM decoder) PCB
CP-2 (Tuner, IF & Decoder Connect.) PCB
TM-6 (Video text decoder) PCB

NOTE:
- * TN-3 (MTS decoder) PCB is installed on VHR-S700G, S700I, S700.
- * TN-5 (NICAM deocoder) PCB is installed on VHR-S700ES, S700E, S800SP.
- * TM-6 (Video text decoder) PCB is installed on VHR-S700G, S700ES, S800SP.
- * TM-8 (VPS) PCB is installed on VHR-S700G only.

Fig. 1-1

1-2. LOCATION FOR TAPE PATH ADJUSTMENT

NOTE: Test point TP182 and TP183 for tape path adjustment is shown in figure below.
For adjustment, refer to the separate volume "Mechanism Service Technical Information".

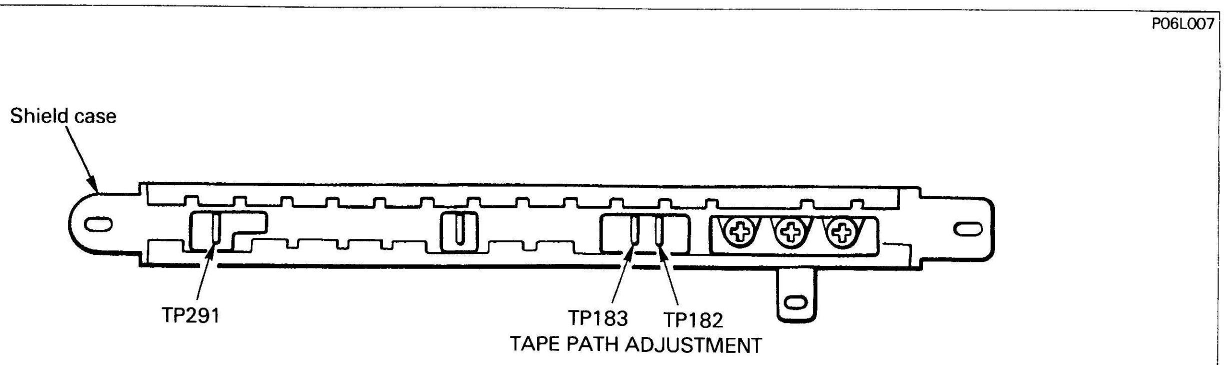

P06L007
Shield case
TP291
TP183
TP182
TAPE PATH ADJUSTMENT

Fig. 1-2 Pre-amp Unit

2. ELECTRICAL ADJUSTMENT

2-1. PREPARATION

2-1-1. EQUIPMENT

- Colour TV monitor
- PAL Colour-bar generator (with RF and LINE OUTPUT)
- PAL TV test signal generator (Multi-burst signal with colour burst)
- Audio signal generator
- Oscilloscope (dual trace; frequency response: 10MHz or more; probe: 10:1)
- Frequency counter (countable to 10MHz or higher)
- Digital voltmeter
- AC voltmeter
- In/output probes
- Alignment cassette (VHJ-0008) PAL Colour bar 1KHz
- Alignment cassette (VHJ-0009) Monoscope 6KHz
- Alignment cassette (VHJ-0051) Check for D.O.C.
- Alignment cassette (VHJ-0023) PAL Monoscope 6KHz, PAL Colour-bar 1KHz, SECAM Colour-bar 1KHz, PAL RF Sweep MESECAM Colour-bar 1KHz, NTSC Colour-bar 1KHz.
- Alignment cassette (VHJ-0080) PAL colour bar HiFi BPF
- Alignment cassetee (VHJ-0020) AF level colour bar 1KHz
- Relay jig (VHJ-0067) 12-wire cable for Pre-amp unit
  Connect the Flat cable end from the Drum assembly to the Pre-amp unit using the Relay jig to provide simple repairing and adjustment of the Pre-amp unit, as shown in Fig. 2-1-1. Further, when adjusting the Pre-amp unit, be sure to make contact an end of Shield case with Bracket of the Pre-amp unit to maintain the shield effect.
- Relay jig (VHJ-0074) for AD-2 PCB
  Connect the Flat cable end to CN203 of the CP-1 PCB and other end to CN261 of the AD-2 PCB using the Relay jig (Fig. 2-1-2) to provide simple repairing and adjustment of the AD-2 PCB.

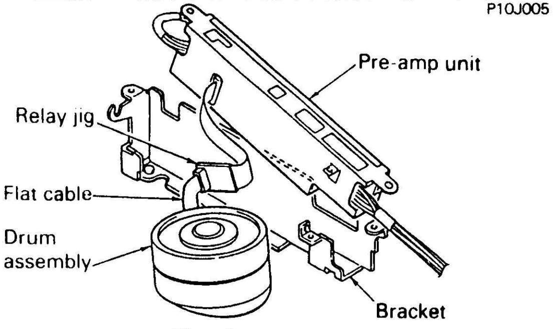


Fig. 2-1-1

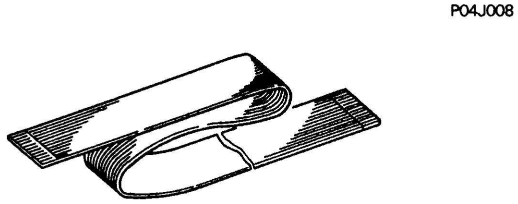


Fig. 2-1-2

2-1-2. SET-UP

Because the RF input signal is used for circuit adjustments, connect the colour-bar generator to the ANT IN terminal of the VCR. The RF input signal is processed by the tuner and IF circuit. It is important that the video output signal of the IF circuit satisfies the items shown in Fig. 2-1-3. Connect the oscilloscope to the VIDEO OUTPUT terminal (CN167 pin 19 CP-1 PCB) of the video circuit and terminate with a 75Ω load, and then check the video output signal.

- The amplitude of the sync signal should be approximately 0.3 Vp-p.
- The amplitude of the video signal should be approximately 0.7 Vp-p.
- While observing the oscilloscope or TV screen, make fine-tuning adjustments so that the colour burst amplitude is approximately 0.3 Vp-p.
- Check to be sure that there is no spike noise in the sync part of the horizontal sync signal.

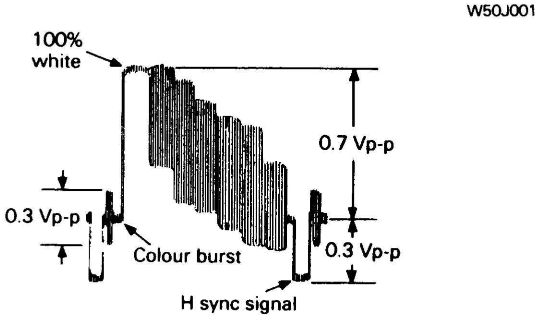
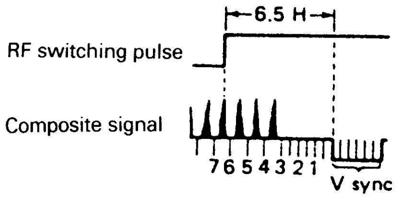
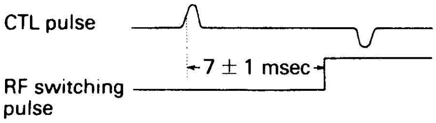


Fig. 2-1-3

2-2. SERVO CIRCUIT ADJUSTMENT ..... CP-1 PCB and VP-1 Pre-amp Unit

NOTE (1) : These adjustments should be carried out upon completion of the transport adjustments.
(2) : If the tape transport adjustments are carried out after these adjustments, follow the procedures again in SWITCHING POSITIONS.
(3) : When adjustment No.4 and No. 5 below, set the SP/LP select switch to the LP position for the model that installed with TAPE SPEED SELECTOR.

No.	Item	Input	Mode	Point	Location	Remark
1	SWITCHING POSITION	Alignment cassette (VHJ-0009 or VHJ-0023)	PLAY (SP mode)	COMPOSITE SYNC TP353 RF SW pulse TP351 (Pre-amp unit)	VR351	W25S011  6.5 H RF switching pulse Composite signal 7 6 5 4 3 2 1 V sync 1. Press the tracking control (+) (–) buttons simultaneously to the center position (on the display "T —:— "). 2. Adjust VR351 so that the phase of the leading edge of the vertical sync signal is delayed 6.5 ± 0.5 H from the rise of the RF switching pulse waveform.
2	STILL V-LOCK for SP MODE	Colour bar from Colour bar generator	REC ↓ PLAY ↓ STILL (SP mode)	TV screen	VR361 Rear panel	1. Put the VCR in the REC (SP) mode and record at the middle of the cassette tape. 2. Playback the recorded part, and put the VCR in the STILL (SP) mode. 3. Adjust VR361 so that the V jitter (very fine movement of the vertical sync) is minimized.
3	SLOW TRACKING for SP MODE	Colour bar from Colour bar generator	REC ↓ PLAY ↓ SLOW (SP mode)	RF SW Pulse TP351 CTL Pulse TP352	VR353	W20S004  1. Playback the recorded part, and VCR in the SLOW (SP) mode by remote control unit. 2. Press the tracking control (+) (–) buttons simultaneously to the center position (on the display "T —:— "). 3. Adjust VR353 so that there is a trigger at approx. 1/2 of the peak level of the positive pulse reading edge of the CTL pulse and the time from this point to the leading edge of the RF switching pulse is 7 ± 1 msec. 4. Confirm that the noise at the "+" and "–" terminals for tracking adjustment is same at the upper and lower edges of the screen. If not, readjust VR353.

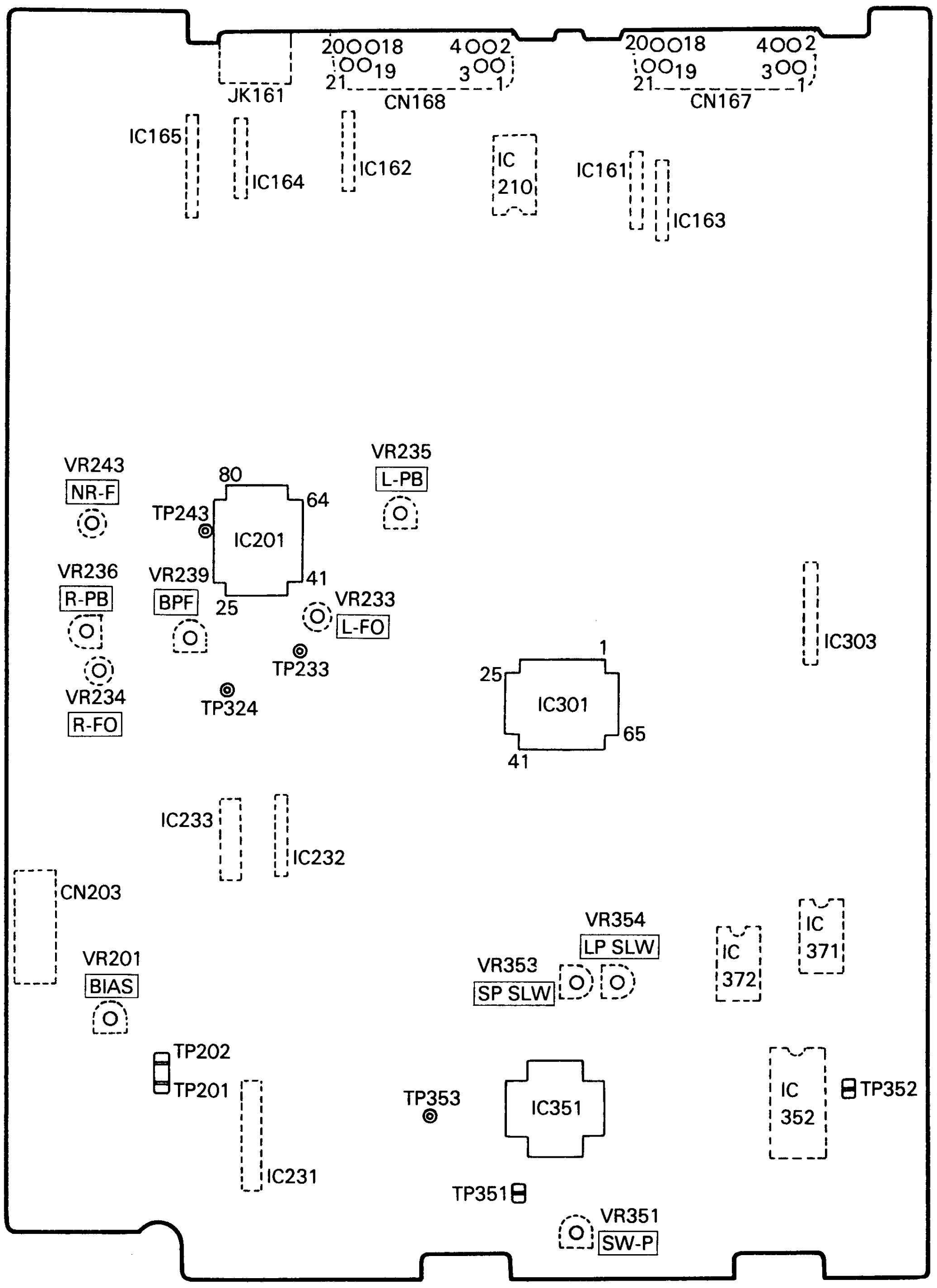
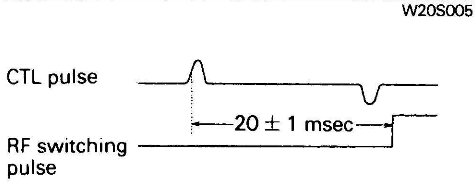

P20S025
JK161
20
18
19
21
4
2
3
1
CN168
20
18
19
21
4
2
3
1
CN167
IC165
IC164
IC162
IC 210
IC161
IC163
VR243
NR-F
80
64
TP243
IC201
VR235
L-PB
VR236
R-PB
VR239
BPF
25
41
VR233
L-FO
TP233
TP324
VR234
R-FO
IC303
1
25
IC301
65
41
IC233
IC232
CN203
VR201
BIAS
VR354
LP SLW
VR353
SP SLW
IC 372
IC 371
TP202
TP201
TP353
IC351
IC 352
TP352
IC231
TP351
VR351
SW-P

Fig. 2-2-1 CP-1 PCB (Foil side view)

No.	Item	Input	Mode	Point	Location	Remark
4	STILL V-LOCK for LP MODE	Colour bar from Colour bar generator	REC ↓ PLAY ↓ STILL (LP mode)	TV screen	VR363 Rear panel	1. Put the VCR in the REC (LP) mode and record at the middle of the cassette tape. 2. Playback the recorded part, and put the VCR in the STILL (LP) mode. 3. Adjust VR363 so that the V jitter (very fine movement of the vertical sync) is minimized.
5	SLOW TRACKING for LP MODE	Colour bar from Colour bar generator	REC ↓ PLAY ↓ SLOW (LP mode)	RF SW Pulse TP351 CTL Pulse TP352	VR354	 W20S005 CTL pulse 20 ± 1 msec RF switching pulse 1. Playback the recorded part, and VCR in the SLOW (LP) mode by remote control unit. 2. Press the tracking control (+) (–) buttons simultaneously to the center position (on the display "T —:— "). 3. Adjust VR354 so that there is a trigger at approx. 1/2 of the peak level of the positive pulse reading edge of the CTL pulse and the time from this point to the leading edge of the RF switching pulse is 20 ± 1 msec. 4. Confirm that the noise at the "+" and "–" terminals for tracking adjustment is same at the upper and lower edges of the screen. If not, readjust VR354.

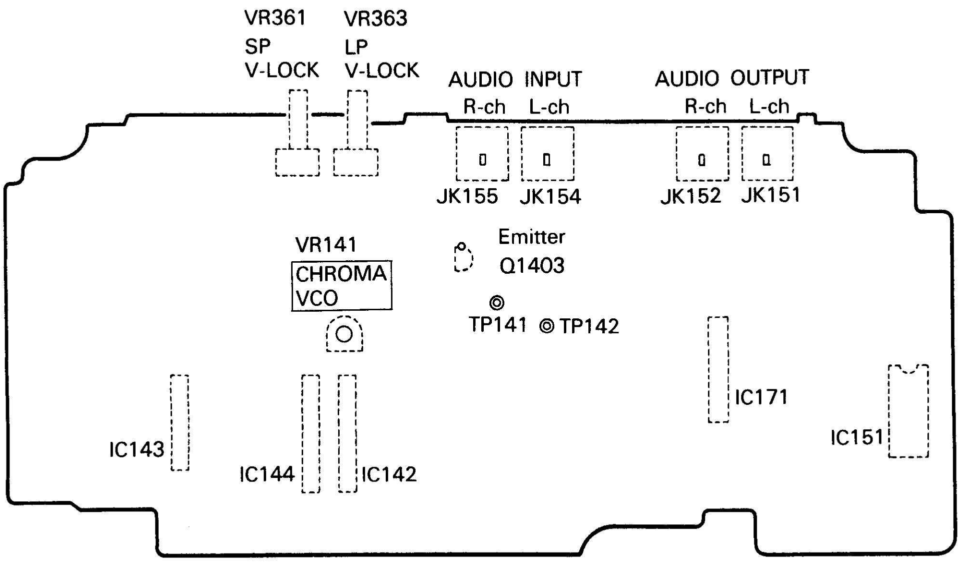
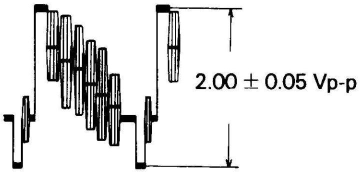

P06S026
VR361
SP
V-LOCK
VR363
LP
V-LOCK
AUDIO INPUT
R-ch
L-ch
AUDIO OUTPUT
R-ch
L-ch
JK155
JK154
JK152
JK151
VR141
CHROMA VCO
Emitter
Q1403
TP141
TP142
IC171
IC151
IC143
IC144
IC142

Fig. 2-2-2 VD-2 PCB (Foil side view)

2-3. VIDEO CIRCUIT ADJUSTMENT ... PW-1, VD-1, VD-2, CP-1 PCB and VP-1 Pre-amp Unit

NOTE : The repair and adjustment of the Pre-amp Unit can easily be made by inserting the Relay jig (VHJ-0067) between the Flat cable from the drum assembly and the connector on the Pre-amp Unit. When adjusting, be sure to touch an end of the Pre-amp Unit shield case to an adjacent metallic chassis to ensure shield effect on the Pre-amp Unit.

No.	Item	Input	Mode	Point	Location	Remark
1	SUPPLY VOLTAGE	No-signal	PLAY	TP511 (PW-1 PCB)	VR511 (PW-1 PCB)	1. Connect the DC Voltmeter between TP511 and ground. 2. Adjust VR511 so that the voltage is 5.25 ± 0.05V.
2	E-E LEVEL	Colour bar (100% White level) from Colour bar generator	E-E	TP101 (VD-1 PCB)	VR111 (VD-1 PCB)	 1. Connect the colour bar generator (100% white level) to CN167 pin 20. 2. Set the AV IN switch to the EURO-AV position. 3. Adjust VR111 so that the signal level is 2.00 ± 0.05 Vp-p.
3	CHROMA VCO	No-signal	E-E	TP142 (VD-2 PCB)	VR141 (VD-2 PCB)	1. Connect a lead wire between TP141 and ground. 2. Set the AV IN switch to the EURO-AV position and take out any cassette tape from VCR. 3. Adjust VR141 so that the frequency is 630 ± 5 KHz.

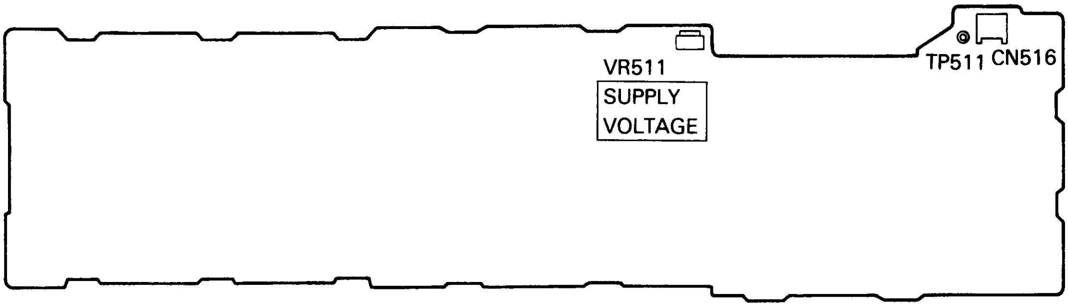
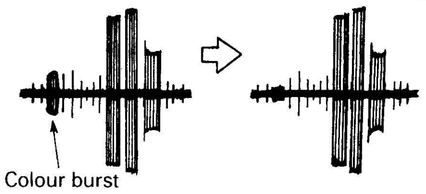
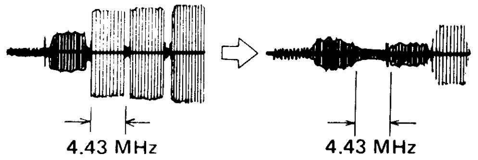


Fig. 2-3-1 PW-1 PCB (Parts side view)

No.	Item	Input	Mode	Point	Location	Remark
4	CORRELATE SIGNAL	Multi-burst signal with colour burst from PAL TV test signal generator	E-E	TP124 TP125 TP126 (VD-1 PCB)	VR116 VR117 (VD-1 PCB)	W25V016  1. Input the Multi-burst signal with colour burst to CN167 pin 20. 2. Set the AV IN switch to the EURO-AV position. 3. Adjust VR117 so that TP125 and TP126 are same level. 4. Adjust VR116 so that the colour burst signal is minimum.
5	CHROMI-NANCE SEPARA-TION	Multi-burst signal with colour burst from PAL TV test signal generator	E-E	TP123 (VD-1 PCB)	VR118 VR119 (VD-1 PCB)	W25V018  1. Input the Multi-burst signal with colour burst to CN167 pin 20. 2. Set the AV input select switch to the EURO-AV position. 3. Adjust VR118 and VR119 alternately for minimum level of the luminance signal component within the colour frequency band (4.43 MHz).

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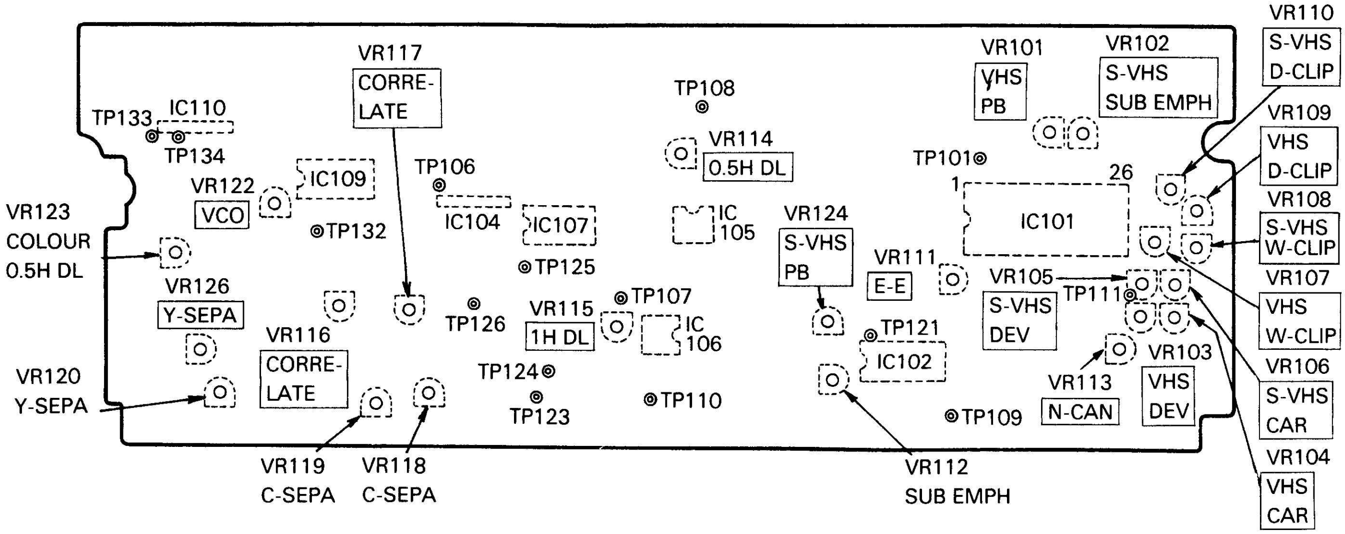
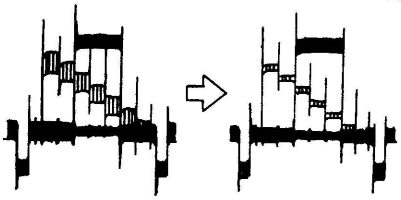
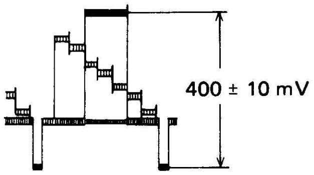
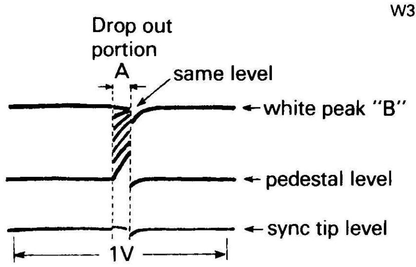
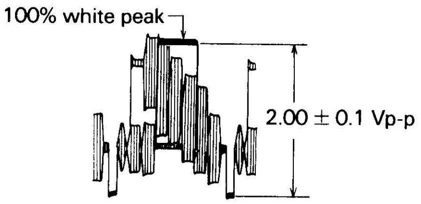
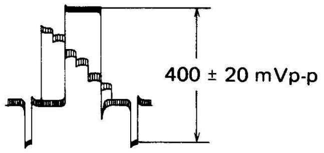
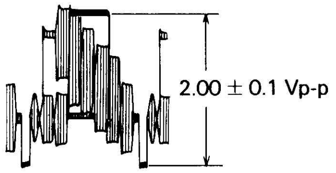
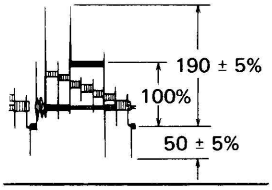
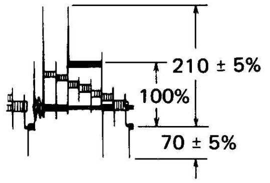

VR117
CORRE-LATE
TP133
IC110
TP134
VR122
VCO
IC109
TP106
TP132
IC104
IC107
TP125
VR123
COLOUR
0.5H DL
VR126
Y-SEPA
VR116
CORRE-LATE
TP126
VR115
1H DL
TP107
IC
106
TP124
TP123
TP110
VR120
Y-SEPA
VR119
C-SEPA
VR118
C-SEPA
TP108
VR114
0.5H DL
IC
105
VR124
S-VHS
PB
VR101
VHS
PB
VR102
S-VHS
SUB EMPH
TP101
1
26
IC101
VR111
E-E
VR105
S-VHS
DEV
TP111
TP121
IC102
VR113
N-CAN
VR103
VHS
DEV
TP109
VR112
SUB EMPH
VR110
S-VHS
D-CLIP
VR109
VHS
D-CLIP
VR108
S-VHS
W-CLIP
VR107
VHS
W-CLIP
VR106
S-VHS
CAR
VR104
VHS
CAR

Fig. 2-3-2 VD-1 PCB (Foil side view)

No.	Item	Input	Mode	Point	Location	Remark
6	LUMI-NANCE SEPARA-TION	Colour bar from Colour bar generator	E-E	TP111 (VD-1 PCB)	VR120 VR126 (VD-1 PCB)	W25V017  1. Connect the colour bar generator to CN167 pin 20. 2. Set the AV IN switch to the EURO-AV position. 3. Adjust VR120 and VR126 alternately so that the chrominance signal is minimum.
7	1H DL	Colour bar from Colour bar generator	E-E	TP109 TP110 (VD-1 PCB)	VR115 (VD-1 PCB)	1. Connect the colour bar generator to CN167 pin 20. 2. Set the AV IN switch to the EURO-AV position. 3. Adjust VR115 so that VR109 and TP110 are same level.
8	REC SUB EMPHASIS LEVEL	Colour bar (100% white level) from Colour bar generator	E-E	TP121 (VD-1 PCB)	VR112 (VD-1 PCB)	W25V019  1. Connect the colour bar generator (100% white level) to CN167 pin 20. 2. Set the AV IN switch to the EURO-AV position. 3. Adjust VR112 so that the signal level is 400 ± 10 mV.
9	NOISE CANCEL-LER	Alignment cassette (VHJ-0051)	PLAY (SP)	TP101 (VD-1 PCB)	VR113 (VD-1 PCB)	W35V020  Drop out portion A same level white peak "B" pedestal level sync tip level 1V 1. Playback the alignment cassette. 2. Set the horizontal scale (TIME/DIV) of the oscilloscope to 1 ~ 2 msec./div. and observe the drop out waveform. 3. Turn the horizontal scale for a suitable range. 4. Adjust VR101 so that the level of TP101 is 1.8V ± 0.2V. 5. Adjust VR113 so that the drop out portion "A" of white peak (100%) and other white peak "B" are same level.

No.	Item	Input	Mode	Point	Location	Remark
10	VHS PB LEVEL	Alignment cassette (VHJ-0008)	PLAY (SP)	TP101 (VD-1 PCB)	VR101 (VD-1 PCB)	W25V021  1. Playback the alignment cassette. 2. Set the 100% white peak level is higher than chrominance signal. 3. Adjust VR101 so that the white peak level is 2.00 ± 0.1 Vp-p.
11	S-VHS PLAYBACK SUB EMPHASIS LEVEL	Alignment cassette (VHJ-0068)	PLAY (SP)	TP121 (VD-1 PCB)	VR102 (VD-1 PCB)	W25V022  1. Playback the alignment cassette. 2. Adjust VR102 so that the signal level is 400 ± 20 mVp-p.
12	S-VHS PB LEVEL	Alignment cassette (VHJ-0068)	PLAY (SP)	TP101 (VD-1 PCB)	VR124 (VD-1 PCB)	W25V021  1. Playback the alignment cassette. 2. Adjust VR124 so that the signal level is 2.00 ± 0.1 Vp-p.
13	0.5H DL	Alignment cassette (VHJ-0008)	PLAY (SP)	TP106 TP107 (VD-1 PCB)	VR114 (VD-1 PCB)	1. Playback the alignment cassette. 2. Adjust VR121 so that TP106 and TP107 are same level.
14	2f$_H$ VCO	Colour bar from Colour bar generator	E-E	TP132 (VD-1 PCB)	VR122 (VD-1 PCB)	1. Connect the colour bar generator to CN167 pin 20. 2. Set the AV IN switch to the EURO-AV position. 3. Adjust VR122 so that the level is 2.4 ± 0.1V (DC).
15	CHROMA 0.5H DL	Colour bar from Colour bar generator	E-E	TP133 TP134 (VD-1 PCB)	VR123 (VD-1 PCB)	1. Connect the colour bar generator to CN167 pin 20. 2. Set the AV IN switch to the EURO-AV position. 3. Adjust VR123 so that TP133 and TP134 are same level.

No.	Item	Input	Mode	Point	Location	Remark
16	VHS WHITE CLIP & DARK CLIP	Colour bar (100% white level) from Colour bar generator	REC (LP)	TP111 (VD-1 PCB)	VR107 VR109 (VD-1 PCB)	W25V023  190 ± 5% 100% 50 ± 5% 1. Connect the colour bar generator (100% white level) to CN167 pin 20. 2. Insert the S-VHS blank tape to the VCR and set the S-VHS button to OFF position. 3. Set the AV IN switch to the EURO-AV position. 4. Adjust VR107 so that the luminance signal level is 190 ± 5%. 5. Adjust VR109 so that the luminance signal level is 50 ± 5%.
17	S-VHS WHITE CLIP & DARK CLIP	Colour bar (100% white level) from Colour bar generator	REC (LP)	TP111 (VD-1 PCB)	VR108 VR110 (VD-1 PCB)	W25V023  210 ± 5% 100% 70 ± 5% 1. Connect the colour bar generator (100% white level) to CN167 pin 20. 2. Insert the S-VHS blank tape to the VCR. 3. Set the AV IN switch to the EURO-AV position. 4. Adjust VR108 so that the luminance signal level is 210 ± 5%. 5. Adjust VR110 so that the luminance signal level is 70 ± 5%.

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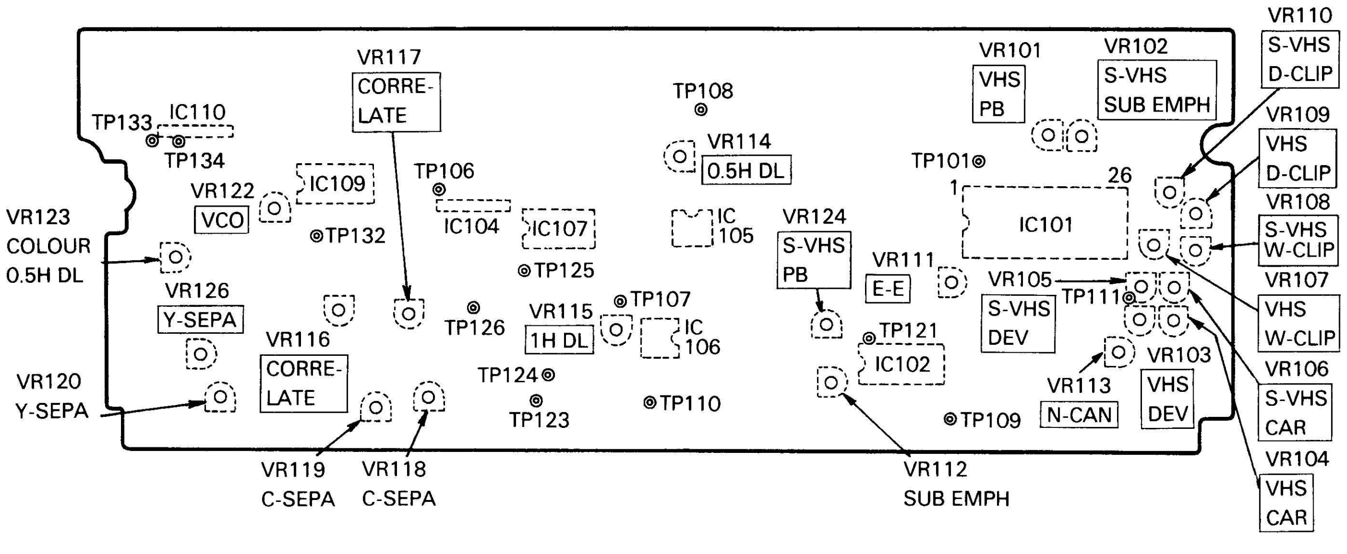
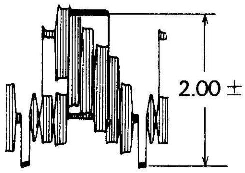
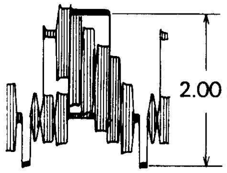
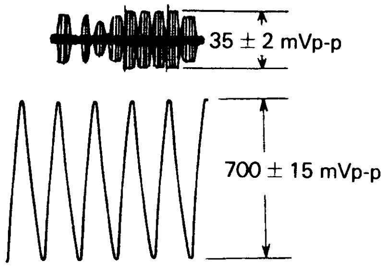
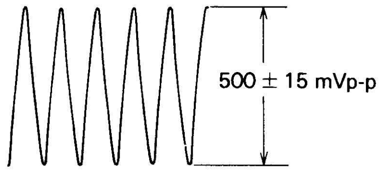


VR117
CORRE-LATE
TP108
VR101
VHS PB
VR102
S-VHS SUB EMPH
VR110
S-VHS D-CLIP
VR109
VHS D-CLIP
TP133
IC110
TP134
VR122
VCO
IC109
TP106
VR114
0.5H DL
TP101
1
26
IC101
VR108
S-VHS W-CLIP
VR123
COLOUR 0.5H DL
IC104
IC107
TP132
IC 105
VR124
S-VHS PB
VR107
VHS W-CLIP
TP125
VR111
E-E
VR105
S-VHS DEV
TP111
VR126
Y-SEPA
TP107
VR115
1H DL
TP126
IC 106
TP121
IC102
VR103
VHS DEV
VR106
S-VHS CAR
VR116
CORRE-LATE
VR120
Y-SEPA
TP124
TP123
TP110
VR113
N-CAN
TP109
VR104
VHS CAR
VR119
C-SEPA
VR118
C-SEPA
VR112
SUB EMPH

Fig. 2-3-3 VD-1 PCB (Foil side view)

No.	Item	Input	Mode	Point	Location	Remark
18	VHS CARRIER SET	No-signal	E-E	TP108 (VD-1 PCB)	VR104 (VD-1 PCB)	1. Connect the frequency counter between TP108 and ground. 2. Set the AV IN switch to the EURO-AV position. 3. Set the S-VHS button to the OFF position. 4. Adjust VR104 so that the frequency is 3.80 ± 0.03 MHz.
19	VHS DEVIATION	Colour bar (100% white level) from Colour bar generator	REC (SP) ↓ PLAY (SP)	TP101 (VD-1 PCB)	VR103 (VD-1 PCB)	W25V021  1. Insert the S-VHS blank tape to the VCR and set the S-VHS button to OFF position. 2. Record the colour bar signal in several minutes. 3. Playback the just-recorded portion in SP mode. 4. Adjust VR103 so that the signal level is 2.00 ± 0.1 Vp-p. 5. Confirm that the frequency at TP108 (VHS CARRIER SET) is 3.80 ± 0.03 MHz. 6. Repeat steps 18 and 19 if necessary.
20	S-VHS CARRIER SET	No-signal	E-E	TP108 (VD-1 PCB)	VR106 (VD-1 PCB)	1. Connect the frequency counter between TP108 and ground. 2. Insert the S-VHS blank tape to the VCR. 3. Adjust VR106 so that the frequency is 5.40 ± 0.02 MHz.
21	S-VHS DEVIATION	Colour bar (100% white level) from Colour bar generator	REC (SP) ↓ PLAY (SP)	TP101 (VD-1 PCB)	VR105 (VD-1 PCB)	W25V021  1. Insert the S-VHS blank tape to the VCR and record the colour bar signal in several minutes. 2. Playback the just-recorded portion in SP mode. 3. Adjust VR105 so that the signal level is 2.00 ± 0.1 Vp-p. 4. Confirm that the frequency at TP108 (S-VHS CARRIER SET) is 5.40 ± 0.02 MHZ. 5. Repeat steps 20 and 21 if necessary.

No.	Item	Input	Mode	Point	Location	Remark
22	S-VHS LUMINANCE SIGNAL RECORDING CURRENT	Colour bar from Colour bar generator	REC (LP)	TP181 (HOT) shield case (GND) (Pre-amp unit)	VR182 VR183 (Pre-amp unit)	W35V024  1. Pull a Flat cable out from CN516 of PW-1 PCB (see Fig. 2-3-1). 2. Connect the colour bar generator to CN167 pin 20. 3. Insert the S-VHS blank tape to the VCR and REC (LP) mode. 4. Rotate VR182 counter-clockwise fully to the minimum luminance level. 5. Adjust VR183 so that the chrominance signal level is 35 ± 2 mVp-p. 6. Connect the above Flat cable as it was and remote the colour bar generator. 7. Set the VCR in the no-signal REC (LP) mode. 8. Adjust VR182 so that the luminance signal level is 700 ± 15 mVp-p.
23	VHS LUMINANCE SIGNAL RECORDING CURRENT	No-signal	REC (LP)	TP181 (HOT) Shield case (GND) (Pre-amp unit)	VR181 (Pre-amp unit)	W20V025  1. Take out any signal to VIDEO INPUT terminal. 2. Insert the S-VHS blank tape to the VCR and set the S-VHS button to OFF position. 3. Insert the VHS Blank tape to the VCR and no-signal REC (LP) mode. 4. Adjust VR181 so that the luminance signal level is 500 ± 15 mVp-p.

P06V009

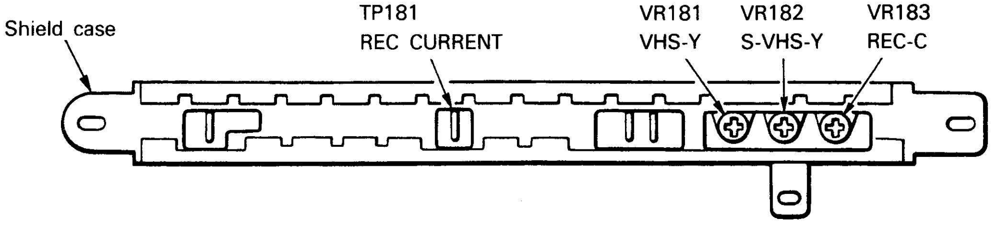


Fig. 2-3-4 Pre-amp Unit

2-4. AUDIO CIRCUIT ADJUSTMENT

NOTE: When repairing and adjusting the CP-1 PCB and AD-2 PCB, use the optionally supplied Relay jig (VHJ-0074) since the flexible PCB for connecting to the AD-2 PCB is short. Connect the Flat cable end to CN261 on the AD-2 PCB and other end to CN203 on the CP-1 PCB.

SETTING BEFORE ADJUSTMENT

- The audio input terminal of the audio signal generator should be terminated at 600 ohms.
- The audio output terminal of the VCR should be terminated at 47 killo ohms (L ch and R ch).
- 0/AV button on the remote control . . . .[AV] position.
- AUDIO output button on the remote control . . . .[L] and [R] position.
- SP/LP select button on the remote control . . . .[SP] position.
- REC LEVEL control (L and R ch) . . . . .Center (click stop) position.
- REC BALANCE control . . . . Center (click stop) position.

P20A010

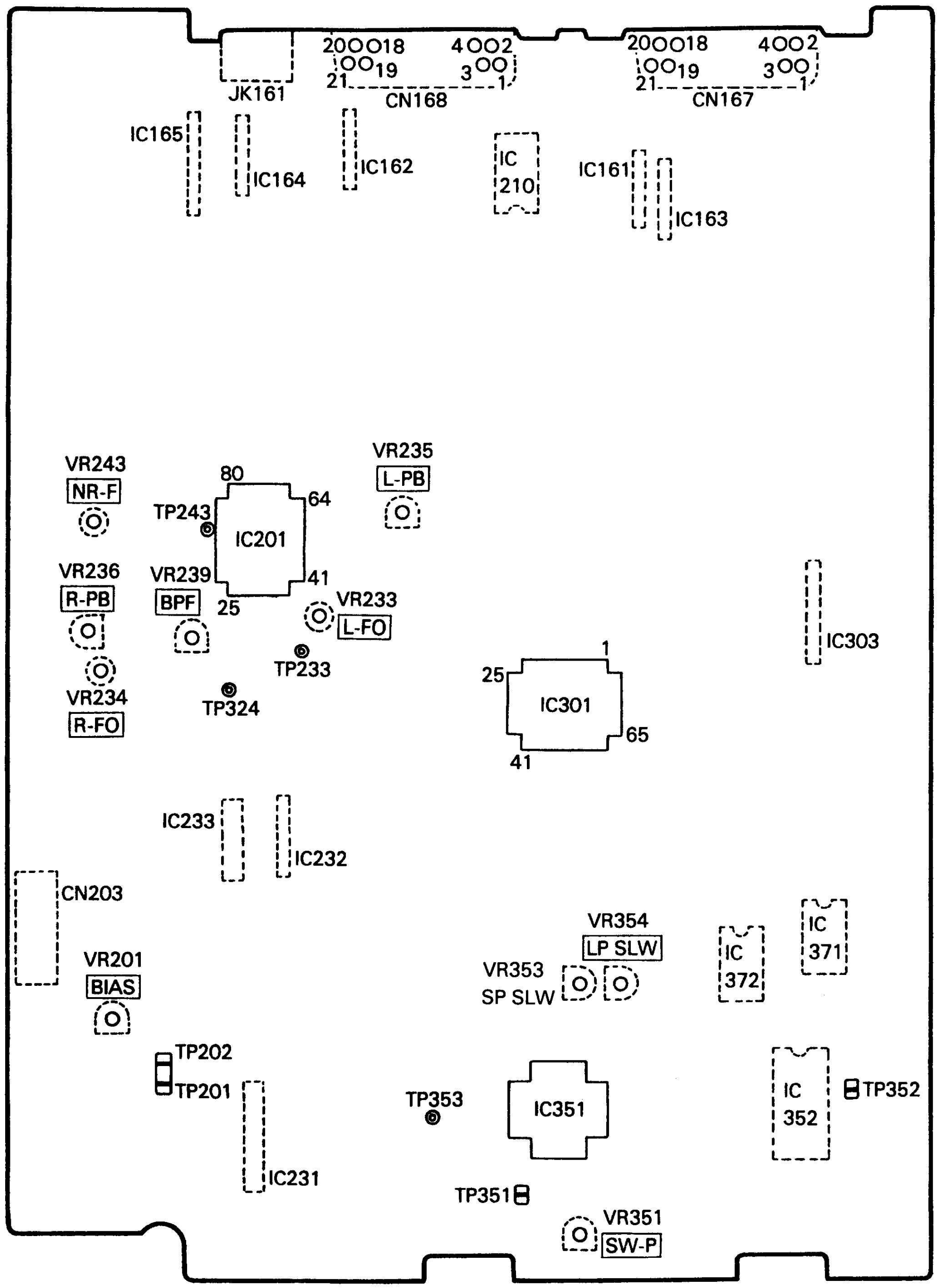
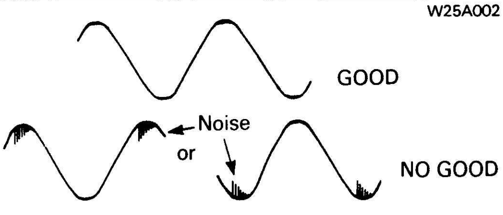

JK161
CN168
CN167
20
18
19
21
4
2
3
1
IC165
IC164
IC162
IC210
IC161
IC163
VR243
NR-F
VR236
R-PB
VR234
R-FO
TP243
80
64
IC201
41
25
VR239
BPF
VR235
L-PB
VR233
L-FO
TP233
TP324
IC303
IC301
1
25
65
41
IC233
IC232
CN203
VR201
BIAS
VR354
LP SLW
VR353
SP SLW
IC372
IC371
TP202
TP201
TP353
IC351
IC352
TP352
IC231
TP351
VR351
SW-P

Fig. 2-4-1 CP-1 PCB (Foil side view)

Hi-Fi AUDIO CIRCUIT .... CP-1 PCB

NOTE (1): The Hi-Fi AUDIO section adjustment has separate adjustment items for the L ch and R ch.
The R ch adjustments are included in parentheses.
(2): 'No-signal record mode' is not to supply any signal to the AUDIO INPUT terminal.

No.	Item	Input	Mode	Point	Location	Remark
1	A-FM CARRIER FREQUENCY	No-signal	REC	TP233 (L ch) TP234 (R ch)	VR233 (L ch) VR234 (R ch)	1. Connect a frequency counter to TP233 (TP234) and ground. 2. Adjust VR233 (VR234) so that the carrier frequency is 1.4 MHz (1.8 MHz) +1, -6 KHz.
2	A-FM BPF	Alignment cassette (VHJ-0080)	PLAY	AUDIO OUTPUT CN167 pin 3 (L ch) pin 1 (R ch)	VR239	 1. Connect a oscilloscope to CN167 pin 3 (pin 1) and ground. 2. Playback the alignment cassette and observe the waveform on the audio output. 3. Adjust VR239 until the noise component of both channel is minimum level.
3	A-FM NR FILTER	Audio signal (5 KHz, -17 dBm) from Audio signal generator	E-E	TP243	VR243	1. Adjust VR243 so that the output level is minimum.
4	A-FM PB LEVEL	Alignment cassette (VHJ-0020)	PLAY	AUDIO OUTPUT CN167 pin 3 (L ch) pin 1 (R ch)	VR235 (L ch) VR236 (R ch)	1. Adjust VR235 (VR236) so that the playback level is -7 ± 0.5dBm.

NORMAL AUDIO CIRCUIT ..... CP-1 PCB

NOTE (1): 'No-signal record mode' is not to supply any signal to the AUDIO INPUT terminal.
(2): Press the AUDIO output select button to the Mono (No indication) position.

No.	Item	Input	Mode	Point	Location	Remark
1	BIAS LEVEL	No-signal	REC	TP201 (HOT) TP202 (CP-1 PCB)	VR201 (CP-1 PCB)	1. Press the "0/AV" button on the remote control unit to the AV position and put the VCR in the no-signal REC mode. 2. Adjust VR201 so that the level is 20 ± 1 mVrms. 3. Confirm that the bias frequency is 70 ± 5 KHz.

2-5. LEVEL METER CIRCUIT ADJUSTMENT ... CP-1 and AD-2 PCB

NOTE: When repairing and adjusting the CP-1 PCB and AD-2 PCB, use the optionally supplied Relay jig (VHJ-0074) since the flexible PCB for connecting to the AD-2 PCB is short. Connect the Flat cable end to CN261 on the AD-2 PCB and other end to CN203 on the CP-1 PCB.

No.	Item	Input	Mode	Point	Location	Remark
1	AUDIO LEVEL METER	Audio signal (1 KHz, -7 dBm) from Audio signal generator	E-E	AUDIO OUTPUT CN167 pin 3 (L ch) pin 1 (R ch) (CP-1 PCB)	VR241 (L ch) VR242 (R ch) (AD-2 PCB)	1. Press the "0/AV" button on the remote control unit to the AV position. 2. Press the AUDIO output button on the remote control unit to the "Lch" and "Rch" position. 3. Connect an audio signal generator to AUDIO INPUT terminal. 4. Connect the AC voltmeter to the AUDIO OUTPUT terminals. 5. Set the AUDIO REC LEVEL control so that the audio output signal level is –7.0dBm. 6. Adjust VR241 and VR242 so that illuminates the -4dB LED. 7. Set the AUDIO REC LEVEL control so that the audio output signal level is –7.5dBm. 8. Adjust VR241 and VR242 so that confirm only the -4dB LED goes out.

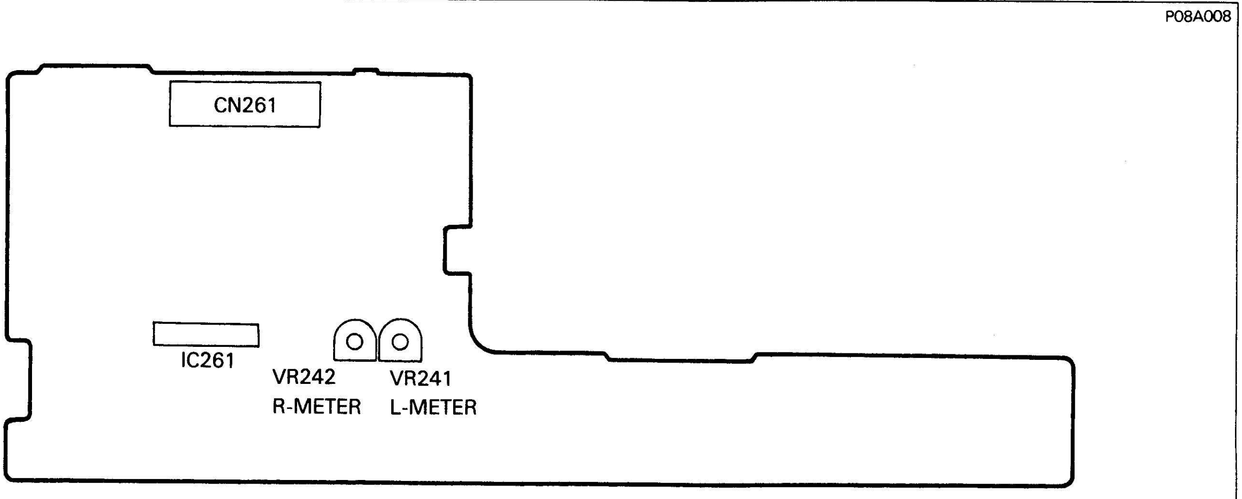


Fig. 2-5-1 AD-2 PCB (Parts side view)

2-6. MTS (Multiplex TV System) DECODER CIRCUIT ADJUSTMENT ... TN-3 PCB

No.	Item	Input	Mode	Point	Location	Remark
1	STEREO SEPARA-TION	Audio signal (R ch...1 KHz 100% mod. L ch...400Hz unmod.) from Audio MPX TV signal generator	E-E	AUDIO OUTPUT CN852 pin 10 (L ch) (CP-1 PCB)	VR631	1. Set the pilot signal for the stereo mode. With the L ch unmodulated, provide 1 KHz 100% modulation on the R ch. 2. Connect an oscilloscope to the audio output terminal (L ch) and adjust VR631 for minimum waveform peak-to-peak value.
2	STEREO (117.5 Hz)	TV broadcast (Stereo)	E-E	IC631 pin 5	VR632	1. Select the TV channel to stereo programme. 2. Adjust VR632 so that the waveform is maximize.
3	BILINGUL (274.1 Hz)	TV broadcast (Bilingul)	E-E	IC631 pin 6	VR633	1. Select the TV channel to bilingul programme. 2. Adjust VR633 so that the waveform is maximize.

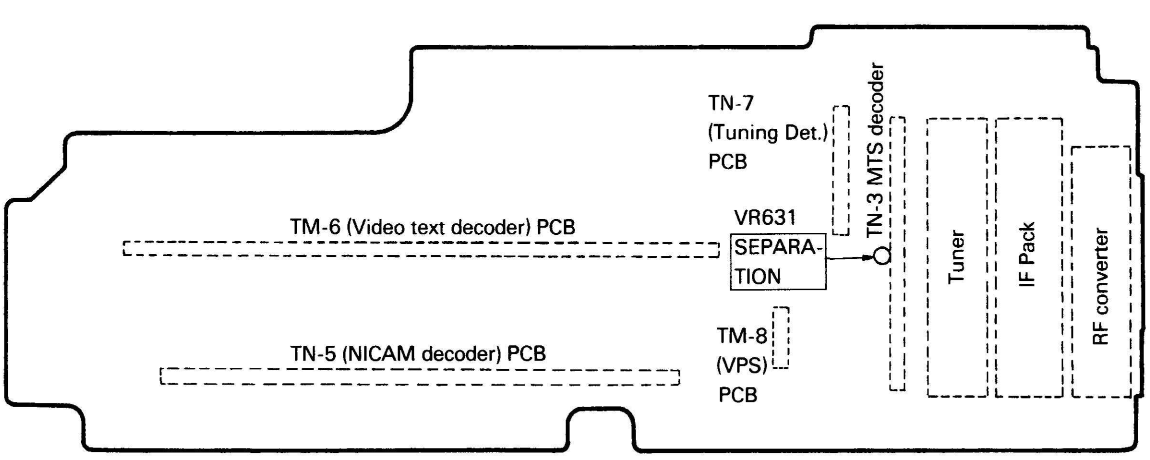

P08M002
TN-7
(Tuning Det.)
PCB
TN-3 MTS decoder
VR631
SEPARA-
TION
TM-6 (Video text decoder) PCB
TN-5 (NICAM decoder) PCB
TM-8
(VPS)
PCB
Tuner
IF Pack
RF converter

Fig. 2-6-1 CP-2 PCB (Foil side view)

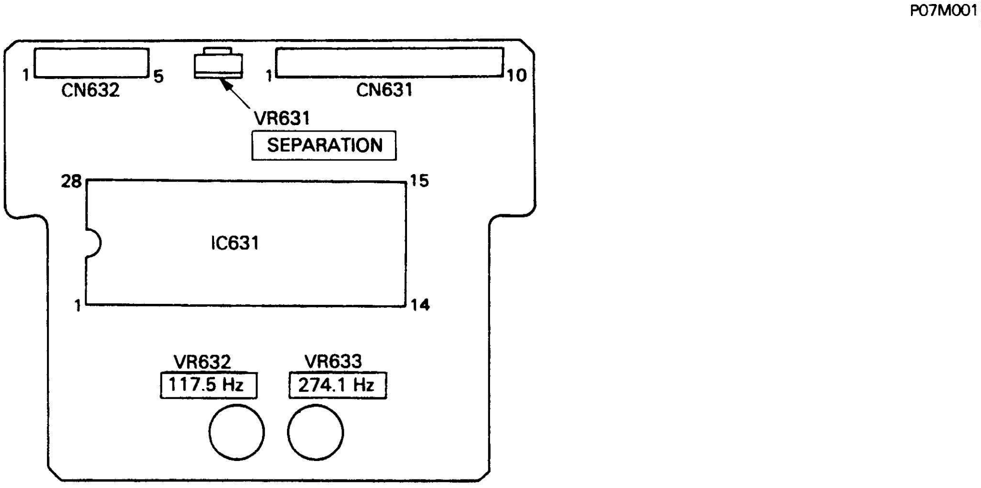
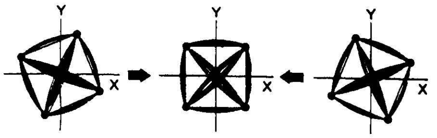

P07M001
1
CN632
5
1
CN631
10
VR631
SEPARATION
28
15
IC631
1
14
VR632
117.5 Hz
VR633
274.1 Hz

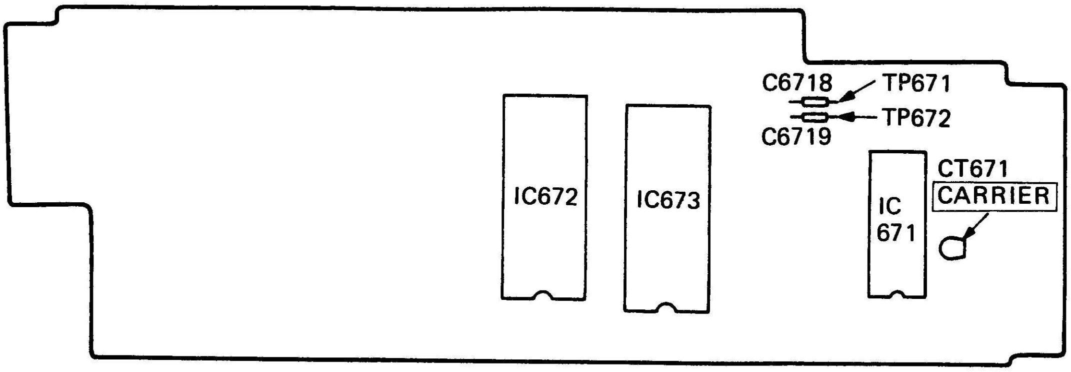
Fig. 2-6-2 TN-3 PCB (Parts side view)

2-7. NICAM DECODER CIRCUIT ADJUSTMENT ... TN-5 PCB

NOTE (1): Do not use a metalic screw driver.
(2): Use the same type of probe (10 MHz, 15 pF) for CH-1 and CH-2.

No.	Item	Input	Mode	Point	Location	Remark
1	CARRIER (VCXO)	NICAM system broadcasting	E-E	TP671 (CH-1) TP672 (CH-2) (TN-5 PCB)	CT671 (TN-5 PCB)	 Y X Y X Y X 1. Receive a NICAM-system (approx. 70 dBμ) broadcasting. 2. Set the oscilloscope to X—Y mode. Set VOLTAGE/DIV. of CH-1 (X) and CH-2 (Y) to 20 mV/DIV.. 3. Connect CH-1 (X) and CH-2 (Y) of the oscilloscope to the TP671; CH-1 and TP672; CH-2. 4. Adjust CT671 so that the resurge waveform becomes parallel to the X and Y axes.

P08N001



C6718
TP671
TP672
C6719
IC672
IC673
IC
671
CT671
CARRIER

Fig. 2-7-1 TN-5 PCB (Parts side view)

2-8. VIDEO TEXT DECODER CIRCUIT ADJUSTMENT ... TM-6 and VD-2 PCB

No.	Item	Input	Mode	Point	Location	Remark
1	DECODER VXO	NONE	E-E	Emitter of Q1403 (VD-2 PCB) Fig. 2-2-2 see page 5	CT761	1. Set the vartical scale (VOLTAGE/DIV.) of the oscilloscope to 10 mV/DIV.. 2. Connect the frequency counter to Emitter of Q1403 and ground through a pre-amp of the above oscilloscope. 3. Press the "MENU" button on the remote control unit. 4. Adjust CT761 so that the frequency is 4433619 ± 20Hz.

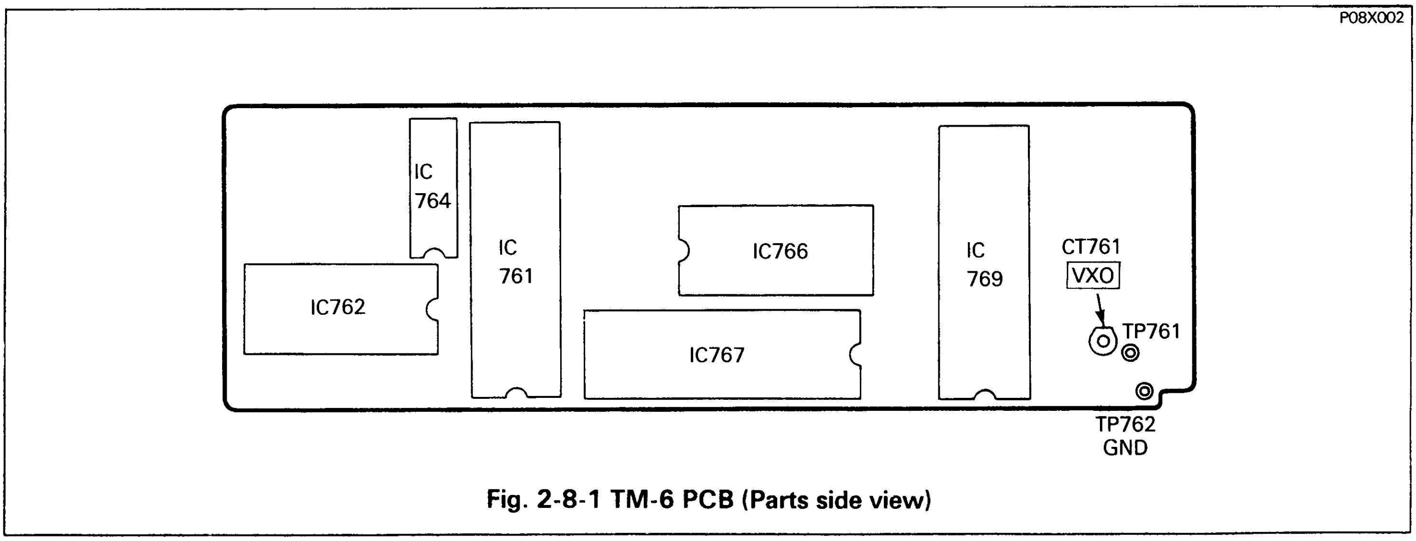

P08X002
IC 764
IC 761
IC766
IC 769
CT761
VXO
IC762
IC767
TP761
TP762 GND

Fig. 2-8-1 TM-6 PCB (Parts side view)

2-9. TUNER IF CIRCUIT ADJUSTMENT ... IF Pack

No.	Item	Input	Mode	Point	Location	Remark
1	RF AGC	TV broadcast	E-E	TV screen	VR611	1. Turn VR611 in the direction which causes snow to appear, then in the opposite direction until the snow just disappears.

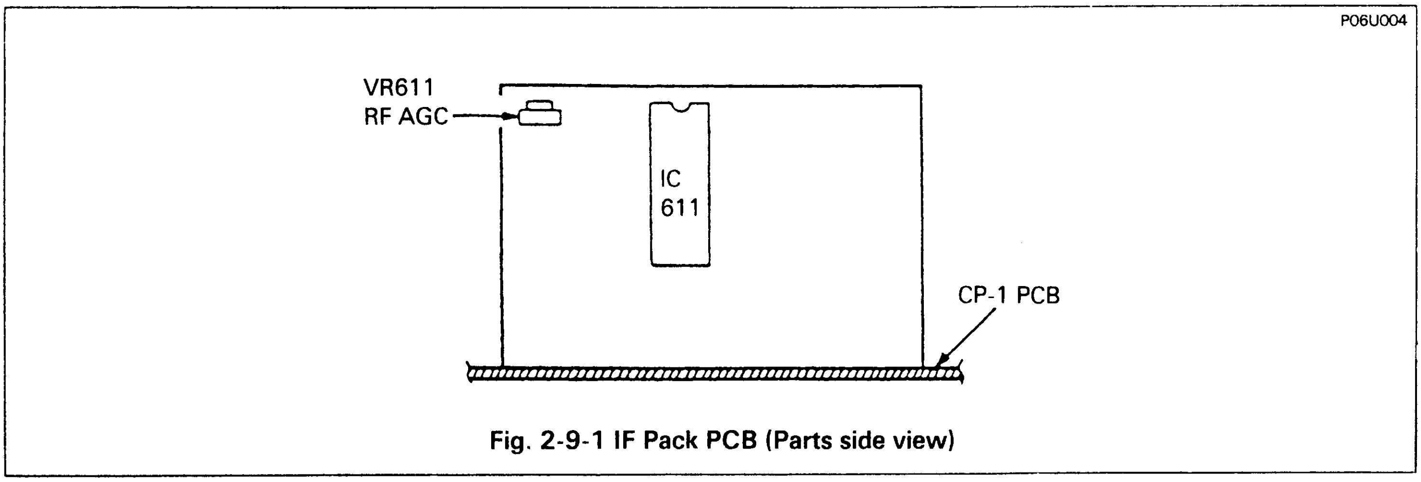

P06U004
VR611
RF AGC
IC 611
CP-1 PCB

Fig. 2-9-1 IF Pack PCB (Parts side view)

SANYO Electric Co., Ltd.
Osaka, Japan

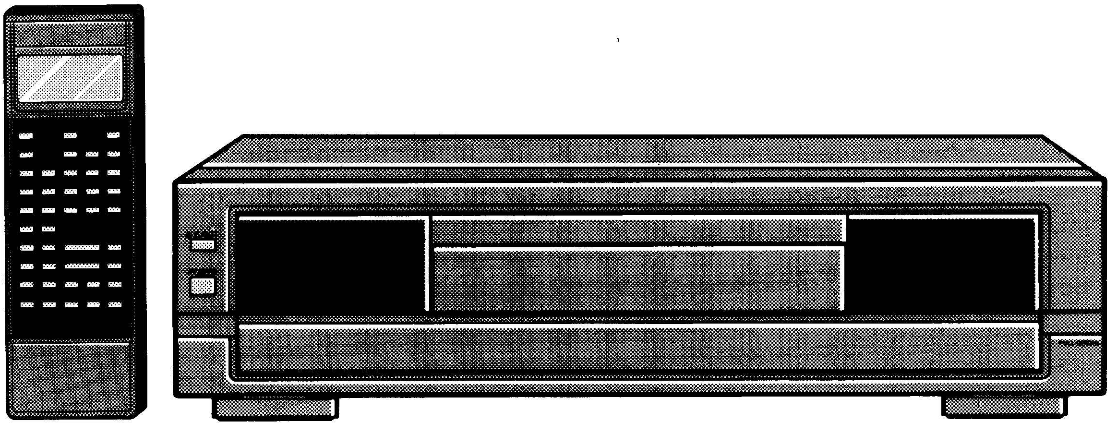
Sep./'90/5820 HA Printed in Japan

SANYO

Parts List & Circuit Diagrams

Video Cassette Recorder

VHR-S700E (U.K.)



S VHS PAL
VHS PAL
Hi-Fi HQ

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Circuit Diagram

Please see other materials with Reference No. given in table below.

Materials	Model No.	Reference No.
Service Manual	VHR-S700 Series	WM-530775
Mechanism Manual	P90 Mechanism	WM-530599

PRODUCT SAFETY NOTICE

The components designated by a symbol (⚠) in this schematic diagram designates components whose value are of special significance to product safety. Should any component designated by a symbol need to be replaced, use only the part designated in the Parts List. Do not deviate from the resistance, wattage and voltage ratings shown.

NOTE: 1. Parts order must contain Model Number, Part Number and Description.
2. N.S.P.: Not available as service parts.

QP4S-/E 143 125 71

REFERENCE No. WM-530788

ACCESSORIES

LOCATION	PARTS NO.	DESCRIPTION
	613 116 8282	INSTRUCTION MANUAL
	613 113 3617	REMOCON
	613 118 0031	CORD,POWER
	613 089 3994	CAUTION LABEL,POWER CORD
	613 109 8725	CABLE,S-VHS
OR	613 109 8732	CABLE,S-VHS
	613 096 6773	CABLE,ANT
OR	613 011 7359	CABLE,ANT
	613 089 3017	PLUG ASSY,AUDIO-RCA

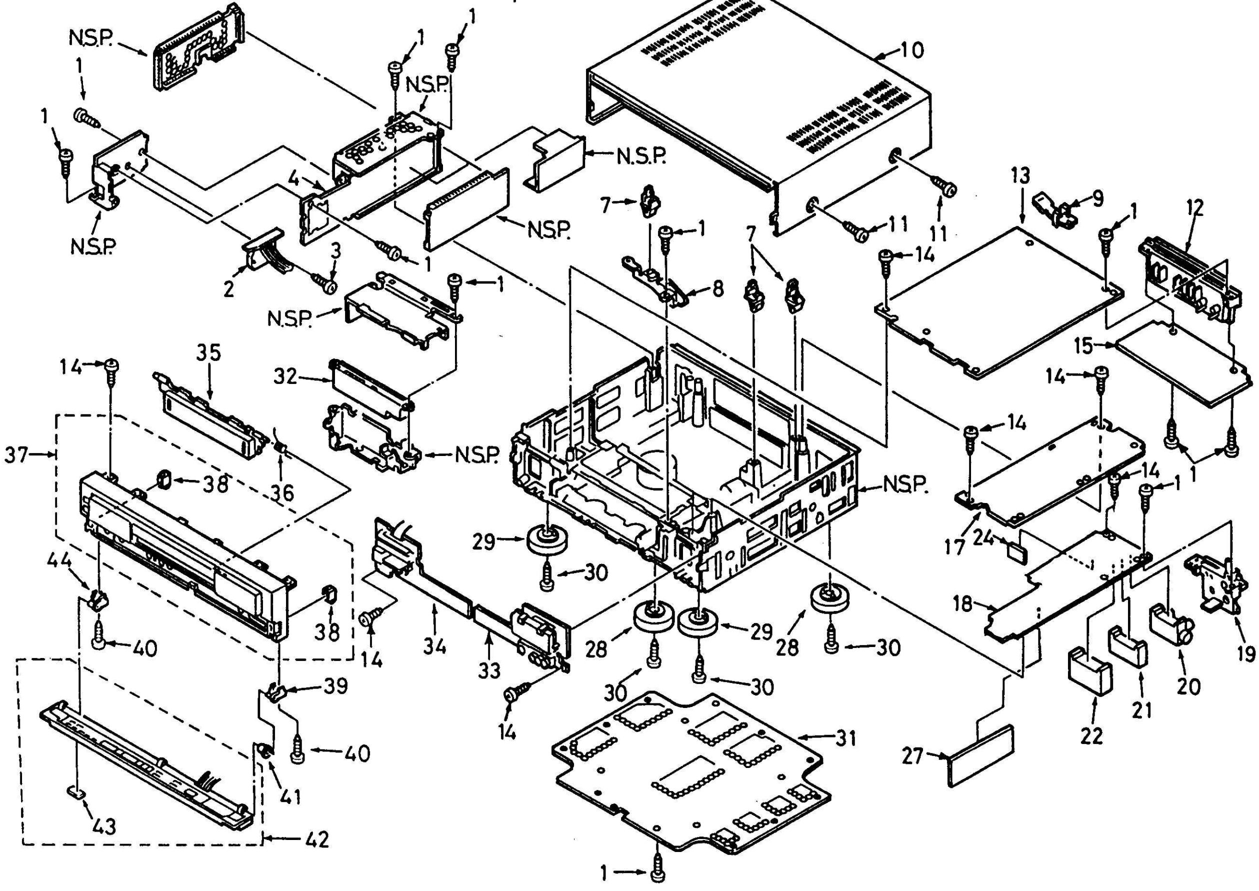
PACKING MATERIALS

LOCATION	PARTS NO.	DESCRIPTION
	613 118 1663	CORR CASE,INNER
	613 114 7744	CUSHION,INNER,FRONT
	613 114 7751	CUSHION,INNER,BACK
	613 095 0765	POLYE COVER,INNER
	613 107 8970	BAR CODE LABEL

CABINET & CHASSIS PARTS

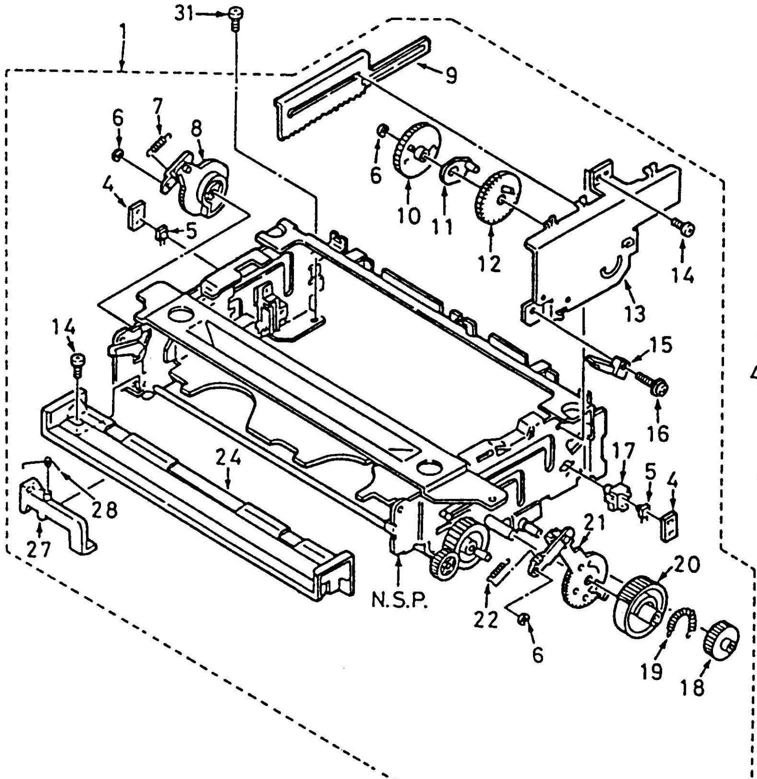
LOCATION	PARTS NO.	DESCRIPTION
1	411 137 0007	SCR L-TPG BIN 3X10
2	613 113 3150	COMPL,PW-2
3	411 021 4302	SCR S-TPG BIN 3X14
4	613 118 0345	COMPL,PW-1
7	613 108 6524	HOLDER
8	613 107 6761	BRACKET
9	613 059 4198	SPRING PLATE
10	613 113 5994	COVER,TOP
11	412 028 9406	+BTS-B S 4X12
12	613 113 7356	TERMINAL(INCLUDE CP-1)
13	613 119 8982	COMPL,CP-1
14	411 021 3800	SCR S-TPG BIN 3X10
15	613 117 9165	COMPL,VD-2
17	613 113 4720	COMPL,VD-1
18	613 117 9639	COMPL,CP-B
19	613 107 5894	TERMINAL(INCLUDE CP-B)
20	613 110 3665	MODULATOR,RF
OR	613 110 3672	MODULATOR,RF
21	613 122 1062	IF PACK
22	613 122 1055	TUNER PACK
24	613 109 4420	COMPL,TN-7
27	613 088 3742	COMPL,TN-5(NICAM)
28	613 110 0992	STAND,REAR
29	613 108 5671	STAND,FRONT
30	411 021 4005	SCR S-TPG BIN 3X12
31	613 107 9335	COVER,BOTTOM
32	613 113 4744	COMPL,VP-1
33	613 118 0314	COMPL,TM-1
34	613 117 8649	COMPL,AD-2
35	613 113 6021	DOOR,CASSETTE
36	613 109 5236	SPRING
37	613 118 1991	ASSY,CABINET,FRONT
38	613 095 1632	HOLDER,DOOR
39	613 110 4891	ASSY,BRACKET,RIGHT
40	411 021 3701	SCR S-TPG BIN 3X10
41	613 110 4365	SPACER
42	613 118 2042	ASSY,DOOR,FRONT
43	613 042 0183	BADGE
44	613 108 2946	ASSY,BRACKET,LEFT

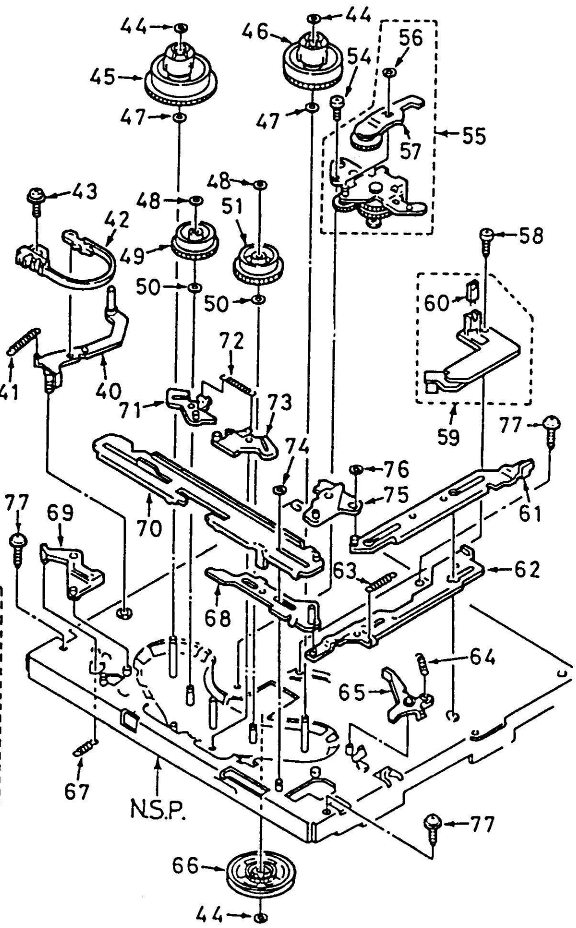
N.S.P.:Not available as service parts.



MECHANISM PARTS 1

LOCATION	PARTS NO.	DESCRIPTION
1	613 108 6326	COMPL,CASSETTE MECHA
4	613 022 0585	LID
5	407 098 3201	PHOTO COUPLE PN150SAN
6	411 015 9801	RING E 2.3
7	613 022 1643	SPRING,LINK L
8	613 022 0073	ASSY,GEAR,LEVER L
9	613 022 2695	RACK
10	613 022 2633	GEAR,LOCK
11	613 021 9916	ASSY,LEVER,PINION
12	613 022 2626	GEAR,PINION
13	613 021 9657	ASSY,BRACKET,GEAR
14	411 027 1305	SCR S-TPG BIN 2.6×4
15	613 006 4479	SPECIAL SWITCH
OR	613 095 0949	SPECIAL SWITCH
16	411 106 9208	SCR PAN+SW+W 2×9
17	613 022 0936	HOLDER,TRANSISTOR
18	613 022 2619	GEAR,IDLER
19	613 022 1667	SPRING,GEAR MAIN
20	613 022 2596	GEAR,MAIN
21	613 022 0097	ASSY,GEAR,LEVER R
22	613 022 1674	SPRING,LINK R
24	613 108 0256	BOARD,UNDER
27	613 022 2237	LEVER,SAFETY SWITCH
28	613 022 1827	SPRING,SAFETY SWITCH
31	411 001 8702	SCR BIN 3×6
40	613 100 0391	ASSY,LEVER,TENSION
41	613 085 7996	SPRING,LEVER TENSION
42	613 021 9701	ASSY,HOLDER,BAND
43	411 036 2805	SCR PAN+SW+W 2.6×6
44	411 109 1605	WASHER Y 2.6×6×0.25
45	613 093 3904	ASSY,REEL,SUPPLY
46	613 093 3898	ASSY,REEL,TAKE UP
47	412 021 5306	SPECIAL WASHER 3.1×6×0.3
OR	412 015 8900	SPECIAL WASHER 3.1×6×0.4
OR	412 015 8504	SPECIAL WASHER 3.1×6×0.5
48	411 109 1506	WASHER Y 2.1×6×0.25
OR	411 109 1407	WASHER Y 2.1×5×0.25
49	613 093 3959	GEAR,REEL SUPPLY
50	412 026 7305	SPECIAL WASHER 2.6×6×0.25
51	613 093 3966	GEAR,REEL TAKE UP
54	411 031 0905	SCR BIN 2.6×4
55	613 093 3911	COMPL,IDLER,CLUTCH
56	411 120 1301	WASHER Y 2.1×4×0.25
57	613 093 3928	ASSY,IDLER
58	411 021 3107	SCR S-TPG BIN 2.6×8
59	613 078 6302	COMPL,MC-4
60	407 016 7205	LED LN59
61	613 021 9985	ASSY,SLIDE,ACT PLATE
62	613 112 8088	SLIDE,CONTROL BRAKE
OR	613 021 9992	ASSY,SLIDE,C BRAKE
63	613 022 1612	SPRING,RETURN SLIDE
64	613 022 1506	SPRING,SUB T
65	613 098 0106	ASSY,BRAKE,SUB T
66	613 093 4024	PULLEY,REEL
67	613 022 1490	SPRING,SUB SUPPLY
68	613 022 2374	SLIDE,ACT BRAKE
69	613 084 8871	BRAKE,SUB SUPPLY
70	613 022 0004	ASSY,SLIDE,M PLATE
71	613 080 9216	ASSY,BRAKE,SUPPLY
72	613 022 1544	SPRING,MAIN BRAKE
OR	613 086 2914	SPRING,MAIN BRAKE
73	613 095 0222	ASSY,BRAKE,TAKE UP
74	411 109 3005	WASHER Y 2.6×5×0.5
75	613 022 2015	LEVER,CONT PLATE
76	412 015 9501	SPECIAL WASHER
77	411 021 7907	SCR S-TPG BIN 4×12

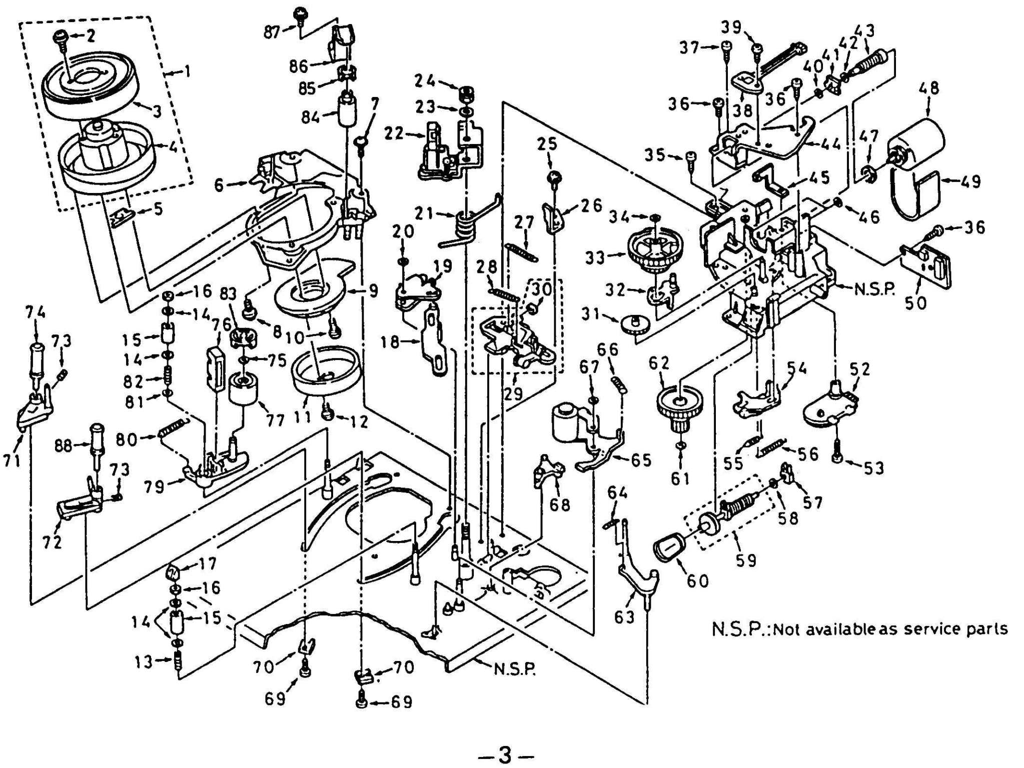




N.S.P.: Not available as service parts

MECHANISM PARTS 2

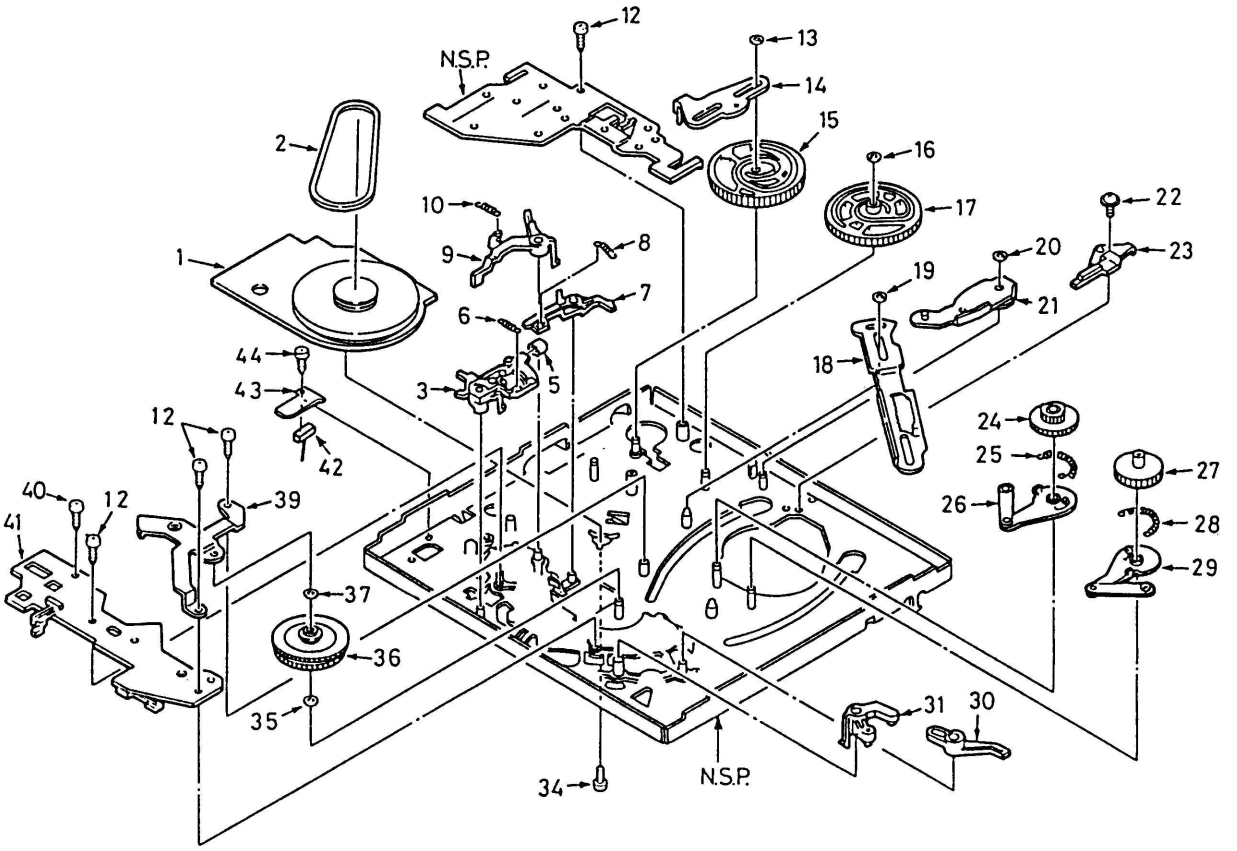
LOCATION	PARTS NO.	DESCRIPTION
1	613 112 3229	COMPL,CYLINDER,5H7P-SRB
2	411 038 1608	SCR PAN+W 3×8
3	613 112 3274	ASSY,CYLINDER,UPR 5H7P-SR
4	613 112 3250	ASSY,CYLINDER,LWR 7PB
5	613 097 2170	SPACER,MOTOR
6	613 106 3686	BASE,CYLINDER
7	411 047 7509	SCR PAN+FLG 3×6
8	411 047 5000	SCR PAN+FLG 2.6×8
OR	412 030 9708	SPECIAL SCREW 2.6×8
9	613 085 7279	STATOR,MOTOR CYLINDER
10	411 044 9209	SCR PAN+SW 2.3×8
OR	411 044 8301	SCR PAN+SW 2.3×10
11	613 022 4019	ROTOR,MOTOR CYLINDER
12	411 044 9001	SCR PAN+SW 2.3×6
13	613 022 1766	SPRING,ADJUST GUIDE
14	613 053 3227	SPECIAL WASHER
15	613 058 3307	TAPE GUIDE
16	412 026 2607	SPECIAL NUT (M3)
17	613 085 2434	CAP
18	613 021 9961	ASSY,SLIDE,ACT PINCH
19	613 021 9800	ASSY,LEVER,CAM PINCH
20	411 109 2008	WASHER Y 3.1×8×0.5
21	613 022 1797	SPRING,ACE HEAD
22	613 079 7971	COMPL,BRACKET,HEAD
23	613 051 4615	SPACER
OR	613 110 1692	SPACER
24	412 015 8207	SPECIAL NUT (M5)
25	411 120 0007	SCR PAN+SW+W 2.6×5
26	613 022 0752	BRACKET,STOPPER
27	613 022 1575	SPRING,LINK LOCK
28	613 022 1582	SPRING,SLIDE BRAKE
29	613 094 9233	ASSY,SLIDE,CAM
30	613 022 2725	DAMPER
31	613 022 2534	GEAR,FRONT LOAD
32	613 094 1206	ASSY,LEVER,FRONT
33	613 077 3586	GEAR,HELICAL FRONT
34	613 027 0504	WASHER 4.1×6.5×R5T
35	411 046 8002	SCR PAN+SW+W 2.6×6
36	411 023 2801	SCR S-TPG PAN 2.6×6
37	411 021 3107	SCR S-TPG BIN 2.6×8
38	613 089 4328	ASSY,SENSOR,DEW
39	411 040 2303	SCR PAN 2.6×5
40	613 053 2381	SPECIAL WASHER
41	613 077 3227	HOLDER,WORM
42	613 027 0382	WASHER
43	613 078 8320	ASSY,WORM,FRONT
44	613 117 0599	BRACKET,HOLDER
OR	613 111 8522	BRACKET,HOLDER
45	613 093 9159	PLATE,NUT
46	613 093 8374	DAMPER,MOTOR
47	613 077 3616	DAMPER,WORM
48	613 021 9527	ASSY,LOADING MOTOR
49	613 092 9945	DAMPER,MOTOR
50	613 107 2732	COMPL,MC-3
52	613 110 0374	ROTARY SWITCH
53	411 126 5303	SCR PAN 2.6×13
54	613 092 9921	ASSY,SLIDE,FRONT
55	613 092 5985	SPRING,LEVER LOAD
56	613 092 5992	SPRING,LEVER ACT
57	613 092 5886	HOLDER,WORM
58	613 027 0627	WASHER 2.1×6×0.5
59	613 092 9938	ASSY,WORM,LOAD
60	613 022 2985	BELT,LOADING
61	412 033 4106	WASHER SLIT 2.6×5×0.5
62	613 077 3579	GEAR,HELICAL
63	613 102 9293	ASSY,LEVER,REV GUIDE
64	613 022 1568	SPRING,REVIEW LEVER
65	613 022 0158	COMPL,PINCH ROLLER
66	613 022 1483	SPRING,PINCH ROLLER
67	411 109 2107	WASHER Y 3.6×6×0.5
68	613 078 8160	COMPL,LEVER,ACT BRAKE
69	411 031 1209	SCR BIN 2.6×5
70	613 022 1919	PLATE,GUIDE
71	613 021 9725	ASSY,BASE,ROLLER S
72	613 021 9732	ASSY,BASE,ROLLER T
73	411 063 0904	SCR SET HEX-SCT 2×3
74	613 102 9309	ASSY,GUIDE,ROLLER
75	412 033 3208	WASHER SILT 1.6×4×0.25
76	613 086 7452	HEAD,FULL ERASE
77	613 095 3759	IMPEDACE ROLLER
79	613 095 3704	ASSY,LEVER,FE HEAD
80	613 022 1698	SPRING,ERASE HEAD
81	411 109 1704	WASHER Y 6.4×10×0.25
83	613 095 3735	BRACKET,IMPEDANCE
84	613 094 4764	ROLLER,IMPEDANCE
85	613 094 4634	BRACKET,IMPEDANCE
86	613 094 4641	HOLDER,IMPEDANCE
87	411 046 9702	SCR PAN+SW+W 3×6
88	613 022 0233	ASSY,GUIDE,ROLLER



N.S.P.:Not available as service parts

MECHANISM PARTS 3

LOCATION	PARTS NO.	DESCRIPTION
1	613 094 3385	MOTOR,CAPSTAN
OR	613 094 3392	MOTOR,CAPSTAN
2	613 093 4031	BELT,REEL DRIVE
3	613 021 9848	ASSY,LEVER,CLUTCH
5	613 079 1023	DAMPER,LEVER CLUTCH
6	613 022 1520	SPRING,LEVER CLUTCH
7	613 082 3434	LEVER,CHANGE CLUTCH
8	613 022 1711	SPRING,CHANGE CLUTCH
9	613 081 7518	ASSY,BRAKE CAPSTAN
10	613 098 2285	SPRING,CAPSTAN
12	411 021 3107	SCR S-TPG BIN 2.6×8
13	411 109 2008	WASHER Y 3.1×8×0.5
14	613 021 9978	ASSY,SLIDE,CAM PLATE
15	613 022 2701	CAM,MODE
16	411 109 1902	WASHER Y 3.1×6×0.5
17	613 022 2718	CAM,MAIN
18	613 022 2664	RACK,LOAD
19	411 109 1803	WASHER Y 2.6×6×0.5
20	411 109 2107	WASHER Y 3.6×6×0.5
OR	411 109 2206	WASHER Y 3.6×8×0.5
21	613 021 9794	ASSY,LEVER,CAM LOAD
22	411 047 6809	SCR PAN+FLG 3×4
23	613 021 9763	ASSY,EARTH,CYLINDER
24	613 022 2435	GEAR,LOAD TAKE UP
OR	613 090 6380	GEAR,LOAD TAKE UP
25	613 022 1551	SPRING,GEAR LOAD T
26	613 021 9879	ASSY,LEVER,LOAD T
27	613 090 6373	GEAR,LOAD SUPPLY
28	613 022 1704	SPRING,GEAR LOAD S
29	613 021 9862	ASSY,LEVER,LOAD S
30	613 022 2039	LEVER,RETURN TENSION
31	613 091 3104	ASSY,LEVER CONTROL
34	411 040 2303	SCR PAN 2.6×5
35	412 015 8603	SPECIAL WASHER 3.1×6×0.25
36	613 093 6448	ASSY,GEAR,FRICTION
37	411 109 1605	WASHER Y 2.6×6×0.25
39	613 079 8121	BRACKET,PULLEY
40	411 100 0300	SCR S-TPG BIN 2.6×5
41	613 110 1364	COMPL,MC-1
R1	401 026 0607	CARBON 270 JA 1/6W
OR	401 017 0708	CARBON 270 JA 1/4W
R2	401 024 6700	CARBON 100 JA 1/6W
OR	401 012 4404	CARBON 100 JA 1/4W
R3	401 026 0607	CARBON 270 JA 1/6W
OR	401 017 0708	CARBON 270 JA 1/4W
D1	407 094 1300	PHOTO COUPLE SPI-315-04-C
OR	407 043 0101	PHOTO DIODE ON2170-R
D2	407 094 1300	PHOTO COUPLE SPI-315-04-C
OR	407 043 0101	PHOTO DIODE ON2170-R
SW1	613 022 4545	SPECIAL SWITCH,EP
42	613 079 8282	SW PUSH
43	613 079 1528	PCB
44	411 046 7906	SCR PAN+SW+W 2.6×5



N.S.P.:Not available as service parts

ELECTRICAL PARTS

NOTE;

*Materials of Capacitors and Resistors are abbreviated as follows;

Resistors

MT-FILE	Metal Film Resistor
MT-GLAZE	Metal Glaze Resistor
OXIDE-MT	Oxide Metal Film Resistor

Capacitors

MT-POLYEST	Metallized Polyester Capacitor
MT-COMPO	Metallized Composite Capacitor
TA-SOLID	Tantalum Solid Capacitor
AL-SOLID	Aluminum Solid Capacitor
NP-ELECT	Non-Polarized Electrolytic Capacitor
OS-SOLID	Aluminum Solid Capacitors with Organic Semiconductive Electrolytic Capacitor
DL-ELECT	Double Layered Electrolytic Capacitor

*Tolerance of Capacitor(10pF over) and Resistor are noted with follow symboles.

F ············ ±1%　G ············ ±2%　J ············ ±5%　K ············ ±10%

M ············ ±20%　N ············ ±30%　Z ············ +80% ~ −20%

*N.S.P. : Not available as service parts.

LOCATION	PARTS NO.	DESCRIPTION
COMPL,CP-1		
COMPL.NO.	613 119 8982	
	411 021 3701	SCR S-TPG BIN 3X10,21P SOCKET
	613 053 8031	FIXER

VIDEO CIRCUIT(VD-A)

LOCATION	PARTS NO.	DESCRIPTION
B1601	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1602	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1603	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1604	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1605	405 018 2808	TR 2SC3402-AC
OR	405 000 3103	TR DTC114ES-DCTP
B1606	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1607	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1608	405 003 7603	TR 2SA1345-AC
B1609	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1610	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1611	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1612	405 003 7603	TR 2SA1345-AC
B1613	405 003 7603	TR 2SA1345-AC
B1614	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
C1601	403 104 8505	CERAMIC 0.047U J 25V
C1602	403 001 1906	CERAMIC 0.01U M 16V
C1603	403 135 4002	ELECT 47U M 6.3V
C1604	403 002 4708	CERAMIC 0.1U Z 25V
C1607	403 134 9602	ELECT 47U M 16V
C1608	403 135 4101	ELECT 470U M 6.3V
C1609	403 001 1906	CERAMIC 0.01U M 16V
C1610	403 002 4708	CERAMIC 0.1U Z 25V
C1611	403 135 4002	ELECT 47U M 6.3V
C1612	403 135 4002	ELECT 47U M 6.3V
C1613	403 135 4002	ELECT 47U M 6.3V
C1614	403 121 2104	ELECT 22U M 10V
C1615	403 121 2104	ELECT 22U M 10V
C1616	403 104 8505	CERAMIC 0.047U J 25V
C1617	403 135 4002	ELECT 47U M 6.3V
C1618	403 143 2809	CERAMIC 0.047U Z 50V
C1619	403 143 2809	CERAMIC 0.047U Z 50V
C1620	403 143 2809	CERAMIC 0.047U Z 50V
C1621	403 134 9602	ELECT 47U M 16V
C1622	403 135 4101	ELECT 470U M 6.3V
C1623	403 135 4101	ELECT 470U M 6.3V
C1624	403 109 6308	ELECT 1U M 50V
C1625	403 001 1906	CERAMIC 0.01U M 16V
C1626	403 001 1906	CERAMIC 0.01U M 16V
C1627	403 001 1906	CERAMIC 0.01U M 16V
C1628	403 028 3402	CERAMIC 56P J 50V
C1629	403 001 1906	CERAMIC 0.01U M 16V
C1630	403 001 1906	CERAMIC 0.01U M 16V
C1631	403 001 1906	CERAMIC 0.01U M 16V
C1632	403 104 8505	CERAMIC 0.047U J 25V
C1633	403 001 1906	CERAMIC 0.01U M 16V
C1634	403 135 4002	ELECT 47U M 6.3V
C1635	403 104 8505	CERAMIC 0.047U J 25V
C1636	403 104 8505	CERAMIC 0.047U J 25V
C1637	403 104 8505	CERAMIC 0.047U J 25V
C1638	403 001 1906	CERAMIC 0.01U M 16V
C1639	403 001 1906	CERAMIC 0.01U M 16V
C1640	403 010 7807	CERAMIC 12P J 50V
C1641	403 068 8801	CERAMIC 100P J 50V
C1642	403 001 1906	CERAMIC 0.01U M 16V
C1643	403 068 8801	CERAMIC 100P J 50V
C1644	403 069 1207	CERAMIC 1000P K 50V
C1645	403 001 1906	CERAMIC 0.01U M 16V
C1646	403 135 4002	ELECT 47U M 6.3V
C1647	403 121 2104	ELECT 22U M 10V
C1648	403 121 2104	ELECT 22U M 10V
C1649	403 022 7703	CERAMIC 33P J 50V
C1651	403 121 2104	ELECT 22U M 10V
C1652	403 001 1906	CERAMIC 0.01U M 16V
C1653	403 001 1906	CERAMIC 0.01U M 16V
C1654	403 068 8801	CERAMIC 100P J 50V
CN167	613 009 1635	SOCKET,21P
CN168	613 009 1635	SOCKET,21P
D1603	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1604	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1605	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1606	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1607	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1608	407 012 4406	DIODE 1SS133-T-77

LOCATION	PARTS NO.	DESCRIPTION
D1608	407 007 9904	DIODE GMA01-BT
D1609	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1610	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1611	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1612	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1613	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1614	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1615	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1616	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1617	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1618	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1619	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1620	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1621	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1622	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1623	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1624	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1625	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1626	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1627	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1628	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1629	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1630	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1631	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1632	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1633	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1634	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1635	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1636	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
IC161	409 182 8901	IC NJM2235L
IC162	409 182 8901	IC NJM2235L
IC163	409 182 8901	IC NJM2235L
IC164	409 182 9007	IC NJM2234L
IC165	409 172 6801	IC BA7604N
JK161	613 092 7972	SOCKET (S)
L1601	613 014 1118	COIL,INDUCTOR 18UHJ
L1602	613 015 6792	COIL,INDUCTOR 330UHK
L1603	613 014 1248	COIL,INDUCTOR 220UHJ

LOCATION	PARTS NO.	DESCRIPTION
Q1601	405 008 4805	TR 2SB764-E-AE
Q1602	405 006 6504	TR 2SA984-E-AA
OR	405 006 6702	TR 2SA984-F-AA
Q1603	405 006 6504	TR 2SA984-E-AA
OR	405 006 6702	TR 2SA984-F-AA
Q1605	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1606	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1607	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1608	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1609	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1610	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1611	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1612	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1613	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 093 0607	TR KSC2785-Y
Q1614	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1615	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1616	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1617	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R

LOCATION	PARTS NO.	DESCRIPTION
Q1617	405 093 0607	TR KSC2785-Y
Q1618	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
Q1619	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1620	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1621	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 015 2504	TR 2SC2669-O-TPE4
Q1623	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1624	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
R1601	401 012 5609	CARBON 1K JA 1/4W
R1603	401 020 1907	CARBON 4.7K JA 1/4W
R1604	401 019 1802	CARBON 3.9K JA 1/4W
R1605	401 012 6903	CARBON 10K JA 1/4W
R1606	401 013 9903	CARBON 13K JA 1/4W
R1607	401 016 4707	CARBON 22K JA 1/4W
R1608	401 020 1907	CARBON 4.7K JA 1/4W
R1609	401 017 1705	CARBON 2.7K JA 1/4W
R1611	401 022 6702	CARBON 75 JA 1/4W
R1612	401 022 1806	CARBON 680 JA 1/4W
R1613	401 022 6702	CARBON 75 JA 1/4W
R1614	401 021 0602	CARBON 56 JA 1/4W
R1615	401 021 2903	CARBON 5.6K JA 1/4W
R1616	401 021 2903	CARBON 5.6K JA 1/4W
R1617	401 016 4707	CARBON 22K JA 1/4W
R1618	401 016 3700	CARBON 2.2K JA 1/4W
R1619	401 012 5609	CARBON 1K JA 1/4W
R1620	401 012 6903	CARBON 10K JA 1/4W
R1621	401 012 5609	CARBON 1K JA 1/4W
R1622	401 012 5609	CARBON 1K JA 1/4W
R1623	401 012 6903	CARBON 10K JA 1/4W
R1624	401 016 3700	CARBON 2.2K JA 1/4W
R1625	401 022 6702	CARBON 75 JA 1/4W
R1626	401 023 1607	CARBON 820 JA 1/4W
R1627	401 022 6702	CARBON 75 JA 1/4W
R1628	401 021 0602	CARBON 56 JA 1/4W
R1629	401 022 6702	CARBON 75 JA 1/4W
R1630	401 022 1806	CARBON 680 JA 1/4W
R1631	401 021 0602	CARBON 56 JA 1/4W
R1632	401 022 6702	CARBON 75 JA 1/4W
R1633	401 022 1806	CARBON 680 JA 1/4W
R1634	401 021 0602	CARBON 56 JA 1/4W
R1635	401 022 6702	CARBON 75 JA 1/4W
R1636	401 022 1806	CARBON 680 JA 1/4W
R1637	401 021 0602	CARBON 56 JA 1/4W
R1638	401 012 5609	CARBON 1K JA 1/4W
R1639	401 012 6903	CARBON 10K JA 1/4W
R1640	401 013 9903	CARBON 13K JA 1/4W
R1641	401 012 6903	CARBON 10K JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R1642	401 016 4707	CARBON 22K JA 1/4W
R1643	401 012 6903	CARBON 10K JA 1/4W
R1644	401 017 1705	CARBON 2.7K JA 1/4W
R1645	401 021 2903	CARBON 5.6K JA 1/4W
R1646	401 015 2605	CARBON 1.8K JA 1/4W
R1647	401 017 1705	CARBON 2.7K JA 1/4W
R1648	401 012 4404	CARBON 100 JA 1/4W
R1649	401 014 4006	CARBON 1.5K JA 1/4W
R1650	401 016 4707	CARBON 22K JA 1/4W
R1651	401 019 1802	CARBON 3.9K JA 1/4W
R1652	401 012 4404	CARBON 100 JA 1/4W
R1653	401 012 5609	CARBON 1K JA 1/4W
R1654	401 012 5609	CARBON 1K JA 1/4W
R1656	401 012 6903	CARBON 10K JA 1/4W
R1657	401 022 6702	CARBON 75 JA 1/4W
R1658	401 022 6702	CARBON 75 JA 1/4W
R1659	401 020 2805	CARBON 47K JA 1/4W
R1660	401 017 2702	CARBON 27K JA 1/4W
R1661	401 014 5102	CARBON 15K JA 1/4W
R1662	401 013 5202	CARBON 1.2K JA 1/4W
R1663	401 020 1907	CARBON 4.7K JA 1/4W
R1664	401 020 0702	CARBON 470 JA 1/4W
R1665	401 020 0702	CARBON 470 JA 1/4W
R1666	401 018 2701	CARBON 330 JA 1/4W
R1667	401 012 5609	CARBON 1K JA 1/4W
R1668	401 020 2805	CARBON 47K JA 1/4W
R1669	401 018 3708	CARBON 3.3K JA 1/4W
R1670	401 012 5609	CARBON 1K JA 1/4W
R1671	401 012 8006	CARBON 100K JA 1/4W
R1672	401 018 5702	CARBON 330K JA 1/4W
R1673	401 012 6903	CARBON 10K JA 1/4W
R1674	401 012 6903	CARBON 10K JA 1/4W
R1675	401 018 4804	CARBON 33K JA 1/4W
R1677	401 023 6909	CARBON 910 JA 1/4W
R1678	401 021 2903	CARBON 5.6K JA 1/4W
R1679	401 013 9408	CARBON 1.3K JA 1/4W
R1683	401 021 1807	CARBON 560 JA 1/4W
R1684	401 017 1705	CARBON 2.7K JA 1/4W
R1685	401 017 1705	CARBON 2.7K JA 1/4W
R1686	401 020 1907	CARBON 4.7K JA 1/4W
R1687	401 012 6903	CARBON 10K JA 1/4W
R1688	401 012 4404	CARBON 100 JA 1/4W
R1689	401 012 6903	CARBON 10K JA 1/4W
R1690	401 014 2804	CARBON 150 JA 1/4W
R1691	401 012 5609	CARBON 1K JA 1/4W
R1693	401 022 1806	CARBON 680 JA 1/4W
R1694	401 022 1806	CARBON 680 JA 1/4W
XF161	613 113 8605	FILTER,4.43MHZ B.P.F

AUDIO CIRCUIT(AD-A)

B2003	405 099 7808	TR DTC343TL TL2
B2004	405 099 7808	TR DTC343TL TL2
B2103	405 076 6404	TR DTC343T-STP
B2104	405 099 7808	TR DTC343TL TL2
B2201	405 063 9708	TR DTC144EL-TL2
B2202	405 063 9302	TR DTA124EL-TL2
B2203	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2204	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2205	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2206	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2207	405 003 7702	TR 2SA1346-AC
OR	405 000 1208	TR DTA124ES-DCTP
B2208	405 018 2501	TR 2SC3399-AC

LOCATION	PARTS NO.	DESCRIPTION
B2208	405 000 6104	TR DTC144ES-DCTP
B2209	405 003 7702	TR 2SA1346-AC
OR	405 000 1208	TR DTA124ES-DCTP
B2210	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2212	405 003 7702	TR 2SA1346-AC
OR	405 000 1208	TR DTA124ES-DCTP
B2214	405 063 9708	TR DTC144EL-TL2
B2215	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2218	405 018 2808	TR 2SC3402-AC
OR	405 000 3103	TR DTC114ES-DCTP
B2219	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2302	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2303	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2304	405 003 7702	TR 2SA1346-AC
OR	405 000 1208	TR DTA124ES-DCTP
B2381	405 063 9708	TR DTC144EL-TL2
B2382	405 063 9104	TR DTA144EL-TL2
B2383	405 063 9708	TR DTC144EL-TL2
B2384	405 063 9708	TR DTC144EL-TL2
B2385	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2389	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2390	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2391	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2392	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2393	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2394	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2395	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2396	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B2397	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
C2001	403 121 3408	ELECT 2.2U M 50V
C2002	403 121 3408	ELECT 2.2U M 50V
C2003	403 121 3408	ELECT 2.2U M 50V
C2004	403 001 1609	CERAMIC 0.01U K 16V
C2005	403 129 5602	ELECT 33U M 10V
C2006	403 107 9905	ELECT 10U M 16V
C2007	403 107 9509	ELECT 100U M 10V
C2008	403 135 5009	ELECT 47U M 10V
C2009	403 134 9602	ELECT 47U M 16V
C2010	403 107 9905	ELECT 10U M 16V
C2011	403 129 5602	ELECT 33U M 10V
C2012	403 001 1609	CERAMIC 0.01U K 16V
C2013	403 134 8100	ELECT 100U M 6.3V
C2014	403 069 1207	CERAMIC 1000P K 50V
C2015	403 073 7004	CERAMIC 470P K 50V
C2018	403 001 1609	CERAMIC 0.01U K 16V
C2019	403 135 3500	ELECT 220U M 6.3V
C2020	403 134 9602	ELECT 47U M 16V
C2021	403 073 7004	CERAMIC 470P K 50V
C2022	403 069 1207	CERAMIC 1000P K 50V
C2023	403 069 1207	CERAMIC 1000P K 50V
C2025	403 073 7004	CERAMIC 470P K 50V
C2031	403 071 6207	CERAMIC 220P K 50V
C2032	403 121 3002	ELECT 4.7U M 25V

LOCATION	PARTS NO.	DESCRIPTION
C2033	403 071 6207	CERAMIC 220P K 50V
C2034	403 121 3002	ELECT 4.7U M 25V
C2036	403 121 3002	ELECT 4.7U M 25V
C2037	403 121 3408	ELECT 2.2U M 50V
C2101	403 121 3408	ELECT 2.2U M 50V
C2102	403 121 3408	ELECT 2.2U M 50V
C2103	403 121 3408	ELECT 2.2U M 50V
C2104	403 001 1609	CERAMIC 0.01U K 16V
C2105	403 129 5602	ELECT 33U M 10V
C2106	403 107 9905	ELECT 10U M 16V
C2107	403 107 9509	ELECT 100U M 10V
C2108	403 135 5009	ELECT 47U M 10V
C2109	403 134 9602	ELECT 47U M 16V
C2110	403 107 9905	ELECT 10U M 16V
C2111	403 129 5602	ELECT 33U M 10V
C2112	403 001 1609	CERAMIC 0.01U K 16V
C2113	403 134 8100	ELECT 100U M 6.3V
C2114	403 069 1207	CERAMIC 1000P K 50V
C2115	403 073 7004	CERAMIC 470P K 50V
C2118	403 001 1609	CERAMIC 0.01U K 16V
C2119	403 135 3500	ELECT 220U M 6.3V
C2120	403 134 9602	ELECT 47U M 16V
C2121	403 073 7004	CERAMIC 470P K 50V
C2122	403 069 1207	CERAMIC 1000P K 50V
C2123	403 069 1207	CERAMIC 1000P K 50V
C2125	403 073 7004	CERAMIC 470P K 50V
C2131	403 071 6207	CERAMIC 220P K 50V
C2132	403 121 3002	ELECT 4.7U M 25V
C2133	403 071 6207	CERAMIC 220P K 50V
C2134	403 121 3002	ELECT 4.7U M 25V
C2136	403 121 3002	ELECT 4.7U M 25V
C2137	403 121 3408	ELECT 2.2U M 50V
C2201	403 193 7908	ELECT 3.3U M 25V
C2202	403 134 9602	ELECT 47U M 16V
C2203	403 121 3002	ELECT 4.7U M 25V
C2204	403 125 5606	ELECT 100U M 16V
C2205	403 001 1609	CERAMIC 0.01U K 16V
C2206	403 069 1207	CERAMIC 1000P K 50V
C2207	403 073 6205	CERAMIC 470P J 50V
C2208	403 167 6500	ELECT 33U M 6.3V
C2209	403 121 3002	ELECT 4.7U M 25V
C2210	403 107 9905	ELECT 10U M 16V
C2211	403 189 2405	ELECT 10U M 16V
C2213	403 191 8808	ELECT 2.2U M 50V
C2214	403 134 9602	ELECT 47U M 16V
C2215	403 001 1609	CERAMIC 0.01U K 16V
C2216	403 069 1207	CERAMIC 1000P K 50V
C2217	403 003 6701	CERAMIC 0.033U K 25V
C2218	403 125 5606	ELECT 100U M 16V
C2219	403 001 1609	CERAMIC 0.01U K 16V
C2220	403 134 8100	ELECT 100U M 6.3V
C2221	403 107 9905	ELECT 10U M 16V
C2230	403 001 1609	CERAMIC 0.01U K 16V
C2234	403 028 3402	CERAMIC 56P J 50V
C2236	403 191 8808	ELECT 2.2U M 50V
C2251	403 135 3500	ELECT 220U M 6.3V
C2301	403 047 1007	ELECT 4.7U M 25V
C2302	403 003 2802	CERAMIC 0.022U K 25V
C2303	403 001 7403	CERAMIC 4700P K 16V
C2304	403 071 6207	CERAMIC 220P K 50V
C2305	403 075 4506	CERAMIC 820P K 50V
C2306	403 075 4506	CERAMIC 820P K 50V
C2307	403 191 8709	ELECT 1U M 50V
C2308	403 069 1207	CERAMIC 1000P K 50V
C2309	403 191 8709	ELECT 1U M 50V
C2310	403 167 6500	ELECT 33U M 6.3V
C2311	403 003 0600	CERAMIC 0.018U K 25V
C2312	403 193 8400	ELECT 0.22U M 50V
C2313	403 001 7007	CERAMIC 3900P K 16V

LOCATION	PARTS NO.	DESCRIPTION
C2314	403 191 8600	ELECT 4.7U M 25V
C2315	403 163 7907	ELECT 47U M 6.3V
C2316	403 189 2405	ELECT 10U M 16V
C2317	403 003 6503	CERAMIC 0.033U J 25V
C2319	403 003 2406	CERAMIC 0.022U J 25V
C2320	403 191 8709	ELECT 1U M 50V
C2321	403 001 1609	CERAMIC 0.01U K 16V
C2322	403 001 1609	CERAMIC 0.01U K 16V
C2323	403 191 8600	ELECT 4.7U M 25V
C2324	403 149 0700	ELECT 33U M 16V
C2325	403 191 8600	ELECT 4.7U M 25V
C2326	403 163 8409	ELECT 47U M 16V
C2327	403 003 3700	CERAMIC 0.022U Z 25V
C2328	403 082 4209	POLYPRO 6800P J 100V
C2381	403 047 1007	ELECT 4.7U M 25V
C2382	403 001 1609	CERAMIC 0.01U K 16V
C2383	403 001 1609	CERAMIC 0.01U K 16V
C2384	403 082 1604	POLYPRO 0.047U J 100V
C2390	403 191 8600	ELECT 4.7U M 25V
C2391	403 149 0700	ELECT 33U M 16V
C2392	403 191 8709	ELECT 1U M 50V
C2393	403 191 8709	ELECT 1U M 50V
C2394	403 167 7002	ELECT 4.7U M 50V
C2395	403 150 6500	ELECT 22U M 16V
C2396	403 191 8600	ELECT 4.7U M 25V
CN203	613 110 1715	FLEXIBLE FLAT CABLE
D2201	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2202	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2204	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2205	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2208	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2209	407 053 6308	ZENER DIODE MTZ5.1B-T-77
D2210	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2211	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2216	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2217	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2220	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2221	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2310	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2311	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2312	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2381	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2382	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2383	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2385	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2386	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2387	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT

LOCATION	PARTS NO.	DESCRIPTION
D2391	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2392	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2393	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2394	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
IC201	409 226 4906	IC UPC2354GF
IC202	409 036 8309	IC M5236L-TC04A-31
IC203	409 039 7101	IC NJM4556D
IC210	409 051 2801	IC TC4052BP
IC231	409 133 1401	IC LA7294
IC232	409 018 7603	IC LA7016
IC233	409 110 4302	IC M51131L
L2001	613 015 6730	COIL,INDUCTOR 100UHK
L2101	613 015 6730	COIL,INDUCTOR 100UHK
L2301	613 014 2870	COIL,INDUCTOR 560UHK
L2302	613 014 3037	COIL,INDUCTOR 10MHJ
Q2001	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 019 3903	TR 2SC536-G-SPA-AC
Q2101	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 019 3903	TR 2SC536-G-SPA-AC
Q2202	405 007 3106	TR 2SB544-F-MP-AE
Q2203	405 089 2103	TR 2SC4483-S-AN
Q2251	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 019 2005	TR 2SC536-E-SPA-AC
Q2252	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 019 2005	TR 2SC536-E-SPA-AC
Q2301	405 019 2708	TR 2SC536-F-NP-AA
Q2381	405 019 2708	TR 2SC536-F-NP-AA
Q2382	405 004 4502	TR 2SA608-F-NP-AA
Q2391	405 033 6706	TR 2SD1468S-DCTP-R
R2001	401 017 2702	CARBON 27K JA 1/4W
R2002	401 021 4006	CARBON 56K JA 1/4W
R2003	401 013 6308	CARBON 12K JA 1/4W
R2004	401 021 4006	CARBON 56K JA 1/4W
R2005	401 020 2805	CARBON 47K JA 1/4W
R2006	401 016 5704	CARBON 220K JA 1/4W
R2007	401 012 5609	CARBON 1K JA 1/4W
R2008	401 012 6903	CARBON 10K JA 1/4W
R2009	401 020 8302	CARBON 5.1K JA 1/4W
R2010	401 012 5609	CARBON 1K JA 1/4W
R2011	401 013 5202	CARBON 1.2K JA 1/4W
R2012	401 017 2702	CARBON 27K JA 1/4W
R2013	401 087 2909	MT-FILM 12K FD 1/6W
R2014	401 016 8408	CARBON 24K JA 1/4W
R2015	401 016 9603	CARBON 27 JA 1/4W
R2016	401 016 3700	CARBON 2.2K JA 1/4W
R2017	401 016 2505	CARBON 220 JA 1/4W
R2018	401 022 1806	CARBON 680 JA 1/4W
R2019	401 012 6903	CARBON 10K JA 1/4W
R2021	401 012 6903	CARBON 10K JA 1/4W
R2022	401 021 4006	CARBON 56K JA 1/4W
R2024	401 022 1806	CARBON 680 JA 1/4W
R2025	401 012 5609	CARBON 1K JA 1/4W
R2031	401 012 5609	CARBON 1K JA 1/4W
R2033	401 012 5609	CARBON 1K JA 1/4W
R2101	401 017 2702	CARBON 27K JA 1/4W
R2102	401 021 4006	CARBON 56K JA 1/4W
R2103	401 013 6308	CARBON 12K JA 1/4W
R2104	401 021 4006	CARBON 56K JA 1/4W
R2105	401 020 2805	CARBON 47K JA 1/4W
R2106	401 016 5704	CARBON 220K JA 1/4W
R2107	401 012 5609	CARBON 1K JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R2108	401 012 6903	CARBON 10K JA 1/4W
R2109	401 020 8302	CARBON 5.1K JA 1/4W
R2110	401 012 5609	CARBON 1K JA 1/4W
R2111	401 013 5202	CARBON 1.2K JA 1/4W
R2112	401 017 2702	CARBON 27K JA 1/4W
R2113	401 091 3305	MT-FILM 7.5K FD 1/6W
R2114	401 023 7401	CARBON 9.1K JA 1/4W
R2115	401 016 9603	CARBON 27 JA 1/4W
R2116	401 016 3700	CARBON 2.2K JA 1/4W
R2117	401 016 2505	CARBON 220 JA 1/4W
R2118	401 022 1806	CARBON 680 JA 1/4W
R2119	401 012 6903	CARBON 10K JA 1/4W
R2121	401 012 6903	CARBON 10K JA 1/4W
R2122	401 021 4006	CARBON 56K JA 1/4W
R2124	401 022 1806	CARBON 680 JA 1/4W
R2125	401 012 5609	CARBON 1K JA 1/4W
R2131	401 012 5609	CARBON 1K JA 1/4W
R2133	401 012 5609	CARBON 1K JA 1/4W
R2201	401 020 1907	CARBON 4.7K JA 1/4W
R2202	401 016 3700	CARBON 2.2K JA 1/4W
R2203	401 012 6903	CARBON 10K JA 1/4W
R2204	401 012 6903	CARBON 10K JA 1/4W
R2205	401 013 6308	CARBON 12K JA 1/4W
R2206	401 012 5609	CARBON 1K JA 1/4W
R2207	401 018 3708	CARBON 3.3K JA 1/4W
R2208	401 013 6308	CARBON 12K JA 1/4W
R2209	401 012 6903	CARBON 10K JA 1/4W
R2210	401 012 8006	CARBON 100K JA 1/4W
R2211	401 012 6903	CARBON 10K JA 1/4W
R2212	401 014 5102	CARBON 15K JA 1/4W
R2215	401 020 1907	CARBON 4.7K JA 1/4W
R2216	401 012 6903	CARBON 10K JA 1/4W
R2217	401 015 1509	CARBON 180 JA 1/4W
R2218	401 016 2505	CARBON 220 JA 1/4W
R2219	401 019 2908	CARBON 39K JA 1/4W
R2220	401 016 4707	CARBON 22K JA 1/4W
R2221	401 017 9701	CARBON 30K JA 1/4W
R2222	401 020 1907	CARBON 4.7K JA 1/4W
R2223	401 013 5202	CARBON 1.2K JA 1/4W
R2224	401 012 8006	CARBON 100K JA 1/4W
R2225	401 018 4804	CARBON 33K JA 1/4W
R2226	401 017 2702	CARBON 27K JA 1/4W
R2228	401 013 6308	CARBON 12K JA 1/4W
R2229	401 016 4707	CARBON 22K JA 1/4W
R2231	401 012 5609	CARBON 1K JA 1/4W
R2234	401 016 2505	CARBON 220 JA 1/4W
R2235	401 014 5102	CARBON 15K JA 1/4W
R2236	401 019 7705	CARBON 4.3K JA 1/4W
R2237	401 018 4804	CARBON 33K JA 1/4W
R2238	401 014 4006	CARBON 1.5K JA 1/4W
R2240	401 012 5609	CARBON 1K JA 1/4W
R2242	401 012 9201	CARBON 1M JA 1/4W
R2253	401 016 3700	CARBON 2.2K JA 1/4W
R2254	401 019 1802	CARBON 3.9K JA 1/4W
R2255	401 020 1907	CARBON 4.7K JA 1/4W
R2256	401 019 0904	CARBON 390 JA 1/4W
R2257	401 020 1907	CARBON 4.7K JA 1/4W
R2258	401 020 1907	CARBON 4.7K JA 1/4W
R2259	401 016 4707	CARBON 22K JA 1/4W
R2260	401 016 4707	CARBON 22K JA 1/4W
R2261	401 020 2805	CARBON 47K JA 1/4W
R2262	401 020 2805	CARBON 47K JA 1/4W
R2263	401 020 2805	CARBON 47K JA 1/4W
R2264	401 020 2805	CARBON 47K JA 1/4W
R2276	401 012 6903	CARBON 10K JA 1/4W
R2283	401 087 4804	MT-FILM 8.2K FD 1/6W
R2288	401 014 4006	CARBON 1.5K JA 1/4W
R2301	401 016 4707	CARBON 22K JA 1/4W
R2302	401 019 9501	CARBON 47 JA 1/4W
R2303	401 016 2505	CARBON 220 JA 1/4W
R2304	401 017 1705	CARBON 2.7K JA 1/4W
R2305	401 013 4106	CARBON 120 JA 1/4W
R2306	401 013 4106	CARBON 120 JA 1/4W
R2307	401 019 3905	CARBON 390K JA 1/4W
R2308	401 021 8905	CARBON 6.2K JA 1/4W
R2309	401 017 1705	CARBON 2.7K JA 1/4W
R2310	401 017 4508	CARBON 2.7M JA 1/4W
R2311	401 018 4804	CARBON 33K JA 1/4W
R2312	401 012 6903	CARBON 10K JA 1/4W
R2313	401 012 6903	CARBON 10K JA 1/4W
R2314	401 016 3700	CARBON 2.2K JA 1/4W
R2315	401 012 3308	CARBON 10 JA 1/4W
R2316	401 019 7705	CARBON 4.3K JA 1/4W
R2317	401 015 2605	CARBON 1.8K JA 1/4W
R2318	401 012 5609	CARBON 1K JA 1/4W
R2319	401 020 1907	CARBON 4.7K JA 1/4W
R2320	401 018 4804	CARBON 33K JA 1/4W
R2321	401 015 3701	CARBON 18K JA 1/4W
R2322	401 020 2805	CARBON 47K JA 1/4W
R2323	401 012 8006	CARBON 100K JA 1/4W
R2324	401 023 2703	CARBON 8.2K JA 1/4W
R2325	401 020 1907	CARBON 4.7K JA 1/4W
R2326	401 016 5704	CARBON 220K JA 1/4W
R2327	401 012 6903	CARBON 10K JA 1/4W
R2328	401 019 6104	CARBON 4.7 JA 1/4W
R2330	401 020 8302	CARBON 5.1K JA 1/4W
R2332	401 020 8302	CARBON 5.1K JA 1/4W
R2341	401 012 5609	CARBON 1K JA 1/4W
R2355	401 012 4404	CARBON 100 JA 1/4W
R2378	401 020 2805	CARBON 47K JA 1/4W
R2379	401 012 6903	CARBON 10K JA 1/4W
R2380	401 013 5202	CARBON 1.2K JA 1/4W
R2381	401 014 5102	CARBON 15K JA 1/4W
R2382	401 019 9501	CARBON 47 JA 1/4W
R2383	401 012 3308	CARBON 10 JA 1/4W
R2384	401 023 2703	CARBON 8.2K JA 1/4W
R2385	401 023 2703	CARBON 8.2K JA 1/4W
R2386	401 018 1506	CARBON 33 JA 1/4W
R2387	401 012 6903	CARBON 10K JA 1/4W
R2388	401 012 6903	CARBON 10K JA 1/4W
R2389	401 016 4707	CARBON 22K JA 1/4W
R2390	401 021 4006	CARBON 56K JA 1/4W
R2391	401 020 2805	CARBON 47K JA 1/4W
R2392	401 020 1907	CARBON 4.7K JA 1/4W
R2393	401 012 3308	CARBON 10 JA 1/4W
R2394	401 016 4707	CARBON 22K JA 1/4W
R2395	401 015 3701	CARBON 18K JA 1/4W
R2396	401 012 6903	CARBON 10K JA 1/4W
R2397	401 020 1907	CARBON 4.7K JA 1/4W
R2398	401 021 8905	CARBON 6.2K JA 1/4W
R2399	401 021 8905	CARBON 6.2K JA 1/4W
RB201	613 085 3110	R-NETWORK,100KX5
RB211	613 085 3110	R-NETWORK,100KX5
T2301	613 109 3492	TRANS,OSC
T2381	613 109 3485	TRANS,OSC
VR201	613 001 9097	SEMI VR 100K
OR	613 097 7915	VR,SEMI 100KB
VR233	613 001 8618	SEMI VR 10K
VR234	613 001 8618	SEMI VR 10K
VR235	613 001 9417	SEMI VR 10KB
OR	613 079 2532	VR,SEMI 10KB
VR236	613 001 9417	SEMI VR 10KB
OR	613 079 2532	VR,SEMI 10KB
VR239	613 001 9400	SEMI VR 5K
OR	613 112 4912	VR,SEMI 5KB

LOCATION	PARTS NO.	DESCRIPTION
VR243	613 001 8656	SEMI VR 100K

SYSTEM CONTROL CIRCUIT(SY-A)

LOCATION	PARTS NO.	DESCRIPTION
B3001	405 018 2808	TR 2SC3402-AC
B3002	405 018 2808	TR 2SC3402-AC
B3153	405 018 2501	TR 2SC3399-AC
B3201	405 018 2501	TR 2SC3399-AC
B3301	405 018 2501	TR 2SC3399-AC
B3401	405 018 2501	TR 2SC3399-AC
B3402	405 018 2808	TR 2SC3402-AC
C3002	403 069 1207	CERAMIC 1000P K 50V
C3041	403 001 1906	CERAMIC 0.01U M 16V
C3042	403 001 1906	CERAMIC 0.01U M 16V
C3051	403 142 5702	NP-ELECT 10U M 25V
C3052	403 069 1207	CERAMIC 1000P K 50V
C3053	403 142 5702	NP-ELECT 10U M 25V
C3054	403 069 1207	CERAMIC 1000P K 50V
C3071	403 167 6500	ELECT 33U M 6.3V
C3072	403 001 3108	CERAMIC 0.1U Z 16V
C3073	403 001 3108	CERAMIC 0.1U Z 16V
C3074	403 134 8100	ELECT 100U M 6.3V
C3081	403 002 2506	CERAMIC 0.01U M 25V
C3082	403 121 9509	CERAMIC 0.1U Z 50V
C3083	403 191 8808	ELECT 2.2U M 50V
C3100	403 155 2804	DL-ELECT 0.047F Z 5.5V
C3201	403 140 9306	NP-ELECT 3.3U M 25V
D3001	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3051	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3052	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3065	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3081	407 070 8101	ZENER DIODE GZS8.2Y-BT
OR	407 063 9504	ZENER DIODE MTZJ8.2B-T-77
D3082	407 051 6904	ZENER DIODE GZS5.6Y-BT
OR	407 099 5303	ZENER DIODE MTZJ5.6B-T-77
D3201	407 012 4406	DIODE 1SS133-T-77
D3301	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
IC301	410 106 9805	IC UPD75516GF-176-3B9
IC302	409 032 3704	IC MN1280-R
OR	409 032 3803	IC MN1280-S
IC303	409 114 4803	IC LB1641
Q3001	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q3002	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q3401	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
R3005	401 021 2903	CARBON 5.6K JA 1/4W
R3006	401 012 6903	CARBON 10K JA 1/4W
R3009	401 020 1907	CARBON 4.7K JA 1/4W
R3012	401 022 3008	CARBON 6.8K JA 1/4W
R3013	401 022 3008	CARBON 6.8K JA 1/4W
R3015	401 020 1907	CARBON 4.7K JA 1/4W
R3021	401 012 5609	CARBON 1K JA 1/4W
R3022	401 012 5609	CARBON 1K JA 1/4W
R3026	401 012 5609	CARBON 1K JA 1/4W
R3027	401 014 5102	CARBON 15K JA 1/4W
R3031	401 012 5609	CARBON 1K JA 1/4W
R3032	401 012 5609	CARBON 1K JA 1/4W
R3033	401 012 5609	CARBON 1K JA 1/4W
R3034	401 020 1907	CARBON 4.7K JA 1/4W
R3035	401 020 1907	CARBON 4.7K JA 1/4W
R3036	401 020 1907	CARBON 4.7K JA 1/4W
R3041	401 020 1907	CARBON 4.7K JA 1/4W
R3042	401 016 0402	CARBON 200K JA 1/4W
R3043	401 016 0402	CARBON 200K JA 1/4W
R3044	401 012 5609	CARBON 1K JA 1/4W
R3045	401 012 5609	CARBON 1K JA 1/4W
R3046	401 012 5609	CARBON 1K JA 1/4W
R3051	401 020 1907	CARBON 4.7K JA 1/4W
R3052	401 012 5609	CARBON 1K JA 1/4W
R3053	401 016 5704	CARBON 220K JA 1/4W
R3055	401 020 2805	CARBON 47K JA 1/4W
R3056	401 018 4804	CARBON 33K JA 1/4W
R3057	401 014 7106	CARBON 1.5M JA 1/4W
R3058	401 016 4707	CARBON 22K JA 1/4W
R3059	401 020 2805	CARBON 47K JA 1/4W
R3060	401 018 4804	CARBON 33K JA 1/4W
R3061	401 014 7106	CARBON 1.5M JA 1/4W
R3062	401 016 4707	CARBON 22K JA 1/4W
R3065	401 017 2702	CARBON 27K JA 1/4W
R3066	401 016 3700	CARBON 2.2K JA 1/4W
R3067	401 012 5609	CARBON 1K JA 1/4W
R3068	401 023 4509	CARBON 820K JA 1/4W
R3070	401 017 3709	CARBON 270K JA 1/4W
R3071	401 022 7105	CARBON 750 JA 1/4W
R3081	401 012 6903	CARBON 10K JA 1/4W
R3082	401 012 6903	CARBON 10K JA 1/4W
R3083	401 022 7105	CARBON 750 JA 1/4W
R3084	402 036 4401	FUSIBLE RES 3.3 JA 1/2W
OR	402 036 3701	FUSIBLE RES 3.3 JA 1/2W
R3085	401 012 6903	CARBON 10K JA 1/4W
R3086	401 012 6903	CARBON 10K JA 1/4W
R3087	401 016 4707	CARBON 22K JA 1/4W
R3088	401 016 4707	CARBON 22K JA 1/4W
R3100	401 016 5704	CARBON 220K JA 1/4W
R3101	401 016 5704	CARBON 220K JA 1/4W
R3102	401 016 5704	CARBON 220K JA 1/4W
R3103	401 016 5704	CARBON 220K JA 1/4W
R3104	401 016 5704	CARBON 220K JA 1/4W
R3126	401 014 4006	CARBON 1.5K JA 1/4W
R3127	401 019 1802	CARBON 3.9K JA 1/4W
R3149	401 014 4006	CARBON 1.5K JA 1/4W
R3177	401 012 6903	CARBON 10K JA 1/4W
R3186	401 012 5609	CARBON 1K JA 1/4W
R3190	401 019 1802	CARBON 3.9K JA 1/4W
R3191	401 020 1907	CARBON 4.7K JA 1/4W
R3192	401 023 4509	CARBON 820K JA 1/4W
R3201	401 016 3700	CARBON 2.2K JA 1/4W
R3301	401 012 8006	CARBON 100K JA 1/4W
R3302	401 018 4804	CARBON 33K JA 1/4W
R3401	401 020 1907	CARBON 4.7K JA 1/4W
R3402	401 012 8006	CARBON 100K JA 1/4W
R3403	401 012 6903	CARBON 10K JA 1/4W
XF301	613 097 9698	RESONATOR,CERAMIC 4.0MHZ
OR	613 108 2496	RESONATOR,CERAMIC 4.0MHZ
OR	613 079 7414	CERAMIC RESONATOR

SERVO CIRCUIT(SV-A)

LOCATION	PARTS NO.	DESCRIPTION
B3501	405 063 9708	TR DTC144EL-TL2
B3503	405 018 2501	TR 2SC3399-AC
B3508	405 003 7603	TR 2SA1345-AC
B3509	405 003 7603	TR 2SA1345-AC
B3520	405 018 2501	TR 2SC3399-AC
B3601	405 063 9708	TR DTC144EL-TL2
B3702	405 018 2501	TR 2SC3399-AC

LOCATION	PARTS NO.	DESCRIPTION
C3501	403 059 6007	POLYESTER 0.022U K 50V
C3502	403 002 8300	CERAMIC 0.015U J 25V
C3503	403 004 3105	CERAMIC 6800P J 25V
C3505	403 002 8300	CERAMIC 0.015U J 25V
C3506	403 145 8601	ELECT 22U M 16V
C3507	403 145 8601	ELECT 22U M 16V
C3508	403 003 1201	CERAMIC 2200P J 25V
C3509	403 002 7006	CERAMIC 1500P J 25V
C3510	403 004 3105	CERAMIC 6800P J 25V
C3511	403 145 8601	ELECT 22U M 16V
C3512	403 145 8601	ELECT 22U M 16V
C3513	403 057 6801	POLYESTER 0.012U J 50V
C3514	403 071 6207	CERAMIC 220P K 50V
C3515	403 189 2405	ELECT 10U M 16V
C3516	403 193 7908	ELECT 3.3U M 25V
C3517	403 074 9205	CERAMIC 680P K 50V
C3518	403 163 6009	NP-ELECT 33U M 16V
C3519	403 069 1207	CERAMIC 1000P K 50V
C3520	403 061 3308	POLYESTER 0.039U J 50V
C3521	403 062 9200	POLYESTER 6800P J 50V
C3522	403 168 6103	MT-POLYEST 0.1U J 50V
C3523	403 175 0903	MT-POLYEST 0.12U J 50V
C3524	403 086 2805	NP-ELECT 1U M 50V
C3525	403 002 1905	CERAMIC 0.01U K 25V
C3526	403 086 2805	NP-ELECT 1U M 50V
C3527	403 002 1905	CERAMIC 0.01U K 25V
C3528	403 193 8400	ELECT 0.22U M 50V
C3529	403 002 0502	CERAMIC 1000P K 25V
C3530	403 191 8709	ELECT 1U M 50V
C3531	403 002 1905	CERAMIC 0.01U K 25V
C3533	403 163 7907	ELECT 47U M 6.3V
C3536	403 001 3108	CERAMIC 0.1U Z 16V
C3537	403 001 3108	CERAMIC 0.1U Z 16V
C3538	403 163 7907	ELECT 47U M 6.3V
C3539	403 163 7907	ELECT 47U M 6.3V
C3545	403 002 0502	CERAMIC 1000P K 25V
C3546	403 061 7405	POLYESTER 4700P J 50V
C3550	403 184 9508	MT-POLYEST 0.068U J 50V
C3551	403 070 4105	CERAMIC 120P K 50V
C3601	403 168 6103	MT-POLYEST 0.1U J 50V
C3602	403 062 0405	POLYESTER 0.047U K 50V
C3603	403 168 6103	MT-POLYEST 0.1U J 50V
C3604	403 168 6103	MT-POLYEST 0.1U J 50V
C3605	403 057 5200	POLYESTER 1200P J 50V
C3701	403 163 8409	ELECT 47U M 16V
C3702	403 001 3108	CERAMIC 0.1U Z 16V
C3703	403 184 9607	MT-POLYEST 0.082U J 50V
D3504	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3505	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3506	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3520	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3521	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3522	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3523	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3524	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3525	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3601	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3602	407 007 9904	DIODE GMA01-BT
D3602	407 012 4406	DIODE 1SS133-T-77
D3605	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3606	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3607	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3608	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3609	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3610	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3613	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3614	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3615	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3616	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3901	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3926	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3927	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
IC351	409 180 3601	IC LC7418-8086
IC352	409 159 8606	IC LA7122S
OR	409 178 3200	IC LA7124
IC371	409 020 7202	IC LC4013B
OR	409 207 1405	IC MLC4013B
IC372	409 020 8704	IC LC4066B
OR	409 207 1900	IC MLC4066B
OR	409 051 3501	IC TC4066BP
Q3501	405 057 6409	TR 2SC4038-R-TL2
Q3502	405 057 6409	TR 2SC4038-R-TL2
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q3503	405 057 6409	TR 2SC4038-R-TL2
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q3602	405 019 2807	TR 2SC536-F-SPA-AC
R3501	401 018 4804	CARBON 33K JA 1/4W
R3502	401 012 8006	CARBON 100K JA 1/4W
R3503	401 012 8006	CARBON 100K JA 1/4W
R3506	401 018 5702	CARBON 330K JA 1/4W
R3507	401 014 5102	CARBON 15K JA 1/4W
R3508	401 014 6000	CARBON 150K JA 1/4W
R3509	401 020 2805	CARBON 47K JA 1/4W
R3510	401 020 2805	CARBON 47K JA 1/4W
R3511	401 012 6903	CARBON 10K JA 1/4W
R3512	401 018 5702	CARBON 330K JA 1/4W
R3513	401 017 2702	CARBON 27K JA 1/4W
R3514	401 014 6000	CARBON 150K JA 1/4W
R3516	401 016 5704	CARBON 220K JA 1/4W
R3520	401 021 9902	CARBON 620K JA 1/4W
R3521	401 022 8508	CARBON 750K JA 1/4W
R3522	401 014 6000	CARBON 150K JA 1/4W
R3523	401 012 8006	CARBON 100K JA 1/4W
R3524	401 012 8006	CARBON 100K JA 1/4W
R3525	401 018 7508	CARBON 360 JA 1/4W
R3526	401 020 7800	CARBON 510 JA 1/4W
R3527	401 020 7800	CARBON 510 JA 1/4W
R3528	401 014 6000	CARBON 150K JA 1/4W
R3529	401 012 6903	CARBON 10K JA 1/4W
R3530	401 012 5609	CARBON 1K JA 1/4W
R3531	401 012 5609	CARBON 1K JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R3532	401 016 3700	CARBON 2.2K JA 1/4W
R3533	401 016 3700	CARBON 2.2K JA 1/4W
R3536	401 012 5609	CARBON 1K JA 1/4W
R3539	401 015 2605	CARBON 1.8K JA 1/4W
R3540	401 012 8006	CARBON 100K JA 1/4W
R3542	401 023 4509	CARBON 820K JA 1/4W
R3554	401 012 5609	CARBON 1K JA 1/4W
R3556	401 012 5609	CARBON 1K JA 1/4W
R3557	401 019 1802	CARBON 3.9K JA 1/4W
R3562	401 012 5609	CARBON 1K JA 1/4W
R3563	401 012 6903	CARBON 10K JA 1/4W
R3567	401 012 6903	CARBON 10K JA 1/4W
R3569	401 012 6903	CARBON 10K JA 1/4W
R3580	401 016 4707	CARBON 22K JA 1/4W
R3581	401 016 4707	CARBON 22K JA 1/4W
R3582	401 012 6903	CARBON 10K JA 1/4W
R3583	401 012 5609	CARBON 1K JA 1/4W
R3584	401 013 6308	CARBON 12K JA 1/4W
R3602	401 012 5609	CARBON 1K JA 1/4W
R3603	401 015 3701	CARBON 18K JA 1/4W
R3605	401 015 4609	CARBON 180K JA 1/4W
R3606	401 012 6903	CARBON 10K JA 1/4W
R3609	401 014 6000	CARBON 150K JA 1/4W
R3610	401 014 6000	CARBON 150K JA 1/4W
R3611	401 018 5702	CARBON 330K JA 1/4W
R3612	401 017 3709	CARBON 270K JA 1/4W
R3613	401 023 7807	CARBON 91K JA 1/4W
R3614	401 013 7206	CARBON 120K JA 1/4W
R3615	401 015 4609	CARBON 180K JA 1/4W
R3616	401 012 8006	CARBON 100K JA 1/4W
R3617	401 012 6903	CARBON 10K JA 1/4W
R3618	401 012 8006	CARBON 100K JA 1/4W
R3619	401 014 6000	CARBON 150K JA 1/4W
R3620	401 012 8006	CARBON 100K JA 1/4W
R3621	401 018 5702	CARBON 330K JA 1/4W
R3625	401 015 3701	CARBON 18K JA 1/4W
R3626	401 018 5702	CARBON 330K JA 1/4W
R3702	401 018 4804	CARBON 33K JA 1/4W
R3703	401 012 6903	CARBON 10K JA 1/4W
R3707	401 012 5609	CARBON 1K JA 1/4W
R3922	401 018 5702	CARBON 330K JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
VR351	613 001 9462	SEMI VR 200KB
OR	613 112 4868	VR,SEMI 200KB
VR353	613 001 9486	SEMI VR 500K
OR	613 112 4936	VR,SEMI 500KB
VR354	613 001 9486	SEMI VR 500K
OR	613 112 4936	VR,SEMI 500KB

COMPL,VD-1

COMPL.NO. 613 113 4720

LOCATION	PARTS NO.	DESCRIPTION
B1001	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1002	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1003	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1006	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1007	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1008	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1009	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1010	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1011	405 000 6104	TR DTC144ES-DCTP
B1011	405 018 2501	TR 2SC3399-AC
B1012	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1013	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1014	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1015	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1016	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1018	405 003 7603	TR 2SA1345-AC
B1019	405 003 7603	TR 2SA1345-AC
B1020	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1021	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1022	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1023	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1024	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1045	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1046	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1047	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1048	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1049	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1101	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1102	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1201	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1202	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1203	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1204	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1205	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1206	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1207	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1208	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1209	405 003 7603	TR 2SA1345-AC
B1210	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1212	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1301	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1302	405 000 3103	TR DTC114ES-DCTP
B1303	405 003 7603	TR 2SA1345-AC

LOCATION	PARTS NO.	DESCRIPTION
C1001	403 001 1906	CERAMIC 0.01U M 16V
C1002	403 135 4002	ELECT 47U M 6.3V
C1003	403 121 3408	ELECT 2.2U M 50V
C1004	403 121 3408	ELECT 2.2U M 50V
C1005	403 121 3408	ELECT 2.2U M 50V
C1007	403 001 1906	CERAMIC 0.01U M 16V

LOCATION	PARTS NO.	DESCRIPTION		
C1008	403 026 2209	CERAMIC	47P J	50V
C1009	403 026 2209	CERAMIC	47P J	50V
C1010	403 070 7205	CERAMIC	150P J	50V
C1011	403 001 1906	CERAMIC	0.01U M	16V
C1012	403 014 2600	CERAMIC	18P J	50V
C1013	403 074 8703	CERAMIC	680P J	50V
C1015	403 001 1906	CERAMIC	0.01U M	16V
C1016	403 026 2209	CERAMIC	47P J	50V
C1017	403 121 9509	CERAMIC	0.1U Z	50V
C1018	403 001 1906	CERAMIC	0.01U M	16V
C1019	403 001 1906	CERAMIC	0.01U M	16V
C1020	403 135 4002	ELECT	47U M	6.3V
C1021	403 001 1906	CERAMIC	0.01U M	16V
C1022	403 024 1501	CERAMIC	39P J	50V
C1023	403 001 1906	CERAMIC	0.01U M	16V
C1024	403 009 1809	CERAMIC	10P J	50V
C1025	403 001 1906	CERAMIC	0.01U M	16V
C1026	403 121 3408	ELECT	2.2U M	50V
C1027	403 107 9905	ELECT	10U M	16V
C1028	403 073 2702	CERAMIC	390P J	50V
C1029	403 071 1509	CERAMIC	180P J	50V
C1030	403 121 3002	ELECT	4.7U M	25V
C1031	403 075 3103	CERAMIC	82P J	50V
C1032	403 014 2600	CERAMIC	18P J	50V
C1033	403 107 9905	ELECT	10U M	16V
C1034	403 121 3408	ELECT	2.2U M	50V
C1035	403 107 9905	ELECT	10U M	16V
C1036	403 109 6308	ELECT	1U M	50V
C1037	403 028 3402	CERAMIC	56P J	50V
C1038	403 010 7807	CERAMIC	12P J	50V
C1039	403 108 0000	ELECT	0.22U M	50V
C1040	403 143 2809	CERAMIC	0.047U Z	50V
C1041	403 140 9207	NP-ELECT	10U M	16V
C1042	403 001 1906	CERAMIC	0.01U M	16V
C1043	403 121 3408	ELECT	2.2U M	50V
C1044	403 140 9207	NP-ELECT	10U M	16V
C1045	403 074 8703	CERAMIC	680P J	50V
C1046	403 014 2600	CERAMIC	18P J	50V
C1047	403 001 1906	CERAMIC	0.01U M	16V
C1048	403 010 7807	CERAMIC	12P J	50V
C1050	403 022 7703	CERAMIC	33P J	50V
C1054	403 030 6309	CERAMIC	68P J	50V
C1056	403 030 6309	CERAMIC	68P J	50V
C1057	403 001 1906	CERAMIC	0.01U M	16V
C1058	403 026 2209	CERAMIC	47P J	50V
C1059	403 024 1501	CERAMIC	39P J	50V
C1060	403 001 1906	CERAMIC	0.01U M	16V
C1061	403 028 3402	CERAMIC	56P J	50V
C1062	403 068 8801	CERAMIC	100P J	50V
C1063	403 030 1700	CERAMIC	6.8P D	50V
C1064	403 074 8703	CERAMIC	680P J	50V
C1065	403 104 8505	CERAMIC	0.047U J	25V
C1066	403 135 4002	ELECT	47U M	6.3V
C1067	403 028 3402	CERAMIC	56P J	50V
C1068	403 030 6309	CERAMIC	68P J	50V
C1069	403 017 9705	CERAMIC	22P J	50V
C1070	403 071 1509	CERAMIC	180P J	50V
C1071	403 073 2702	CERAMIC	390P J	50V
C1072	403 030 6309	CERAMIC	68P J	50V
C1074	403 001 1906	CERAMIC	0.01U M	16V
C1076	403 001 1906	CERAMIC	0.01U M	16V
C1077	403 001 1906	CERAMIC	0.01U M	16V
C1078	403 068 8801	CERAMIC	100P J	50V
C1080	403 001 1906	CERAMIC	0.01U M	16V
C1081	403 068 8801	CERAMIC	100P J	50V
C1101	403 135 4002	ELECT	47U M	6.3V
C1102	403 121 3408	ELECT	2.2U M	50V
C1103	403 121 3408	ELECT	2.2U M	50V
C1104	403 135 4002	ELECT	47U M	6.3V
C1105	403 135 4002	ELECT	47U M	6.3V
C1106	403 001 1906	CERAMIC	0.01U M	16V
C1107	403 144 4406	CERAMIC	220P G	50V
C1108	403 195 9207	CERAMIC	300P G	50V
C1109	403 195 9207	CERAMIC	300P G	50V
C1110	403 144 4307	CERAMIC	82P G	50V
C1111	403 144 4505	CERAMIC	270P G	50V
C1112	403 071 1509	CERAMIC	180P J	50V
C1113	403 026 2209	CERAMIC	47P J	50V
C1114	403 022 4702	CERAMIC	300P J	50V
C1120	403 074 8703	CERAMIC	680P J	50V
C1121	403 191 8600	ELECT	4.7U M	25V
C1122	403 191 8600	ELECT	4.7U M	25V
C1126	403 001 1906	CERAMIC	0.01U M	16V
C1127	403 001 1906	CERAMIC	0.01U M	16V
C1128	403 001 1906	CERAMIC	0.01U M	16V
C1129	403 167 6609	ELECT	47U M	10V
C1130	403 163 7907	ELECT	47U M	6.3V
C1131	403 001 1906	CERAMIC	0.01U M	16V
C1132	403 010 7807	CERAMIC	12P J	50V
C1133	403 026 2209	CERAMIC	47P J	50V
C1134	403 024 1501	CERAMIC	39P J	50V
C1137	403 026 2209	CERAMIC	47P J	50V
C1151	403 107 9905	ELECT	10U M	16V
C1153	403 001 1906	CERAMIC	0.01U M	16V
C1154	403 135 4002	ELECT	47U M	6.3V
C1155	403 074 8703	CERAMIC	680P J	50V
C1156	403 191 8600	ELECT	4.7U M	25V
C1157	403 191 8600	ELECT	4.7U M	25V
C1158	403 001 1906	CERAMIC	0.01U M	16V
C1159	403 001 1906	CERAMIC	0.01U M	16V
C1160	403 001 1906	CERAMIC	0.01U M	16V
C1161	403 167 6609	ELECT	47U M	10V
C1162	403 163 7907	ELECT	47U M	6.3V
C1163	403 001 1906	CERAMIC	0.01U M	16V
C1164	403 010 7807	CERAMIC	12P J	50V
C1165	403 026 2209	CERAMIC	47P J	50V
C1166	403 024 1501	CERAMIC	39P J	50V
C1167	403 121 3002	ELECT	4.7U M	25V
C1168	403 074 8703	CERAMIC	680P J	50V
C1169	403 191 8600	ELECT	4.7U M	25V
C1170	403 001 1906	CERAMIC	0.01U M	16V
C1171	403 001 1906	CERAMIC	0.01U M	16V
C1172	403 193 8202	ELECT	0.1U M	50V
C1173	403 001 1906	CERAMIC	0.01U M	16V
C1174	403 167 6609	ELECT	47U M	10V
C1175	403 163 7907	ELECT	47U M	6.3V
C1176	403 001 1906	CERAMIC	0.01U M	16V
C1177	403 010 7807	CERAMIC	12P J	50V
C1178	403 026 2209	CERAMIC	47P J	50V
C1179	403 024 1501	CERAMIC	39P J	50V
C1180	403 075 3103	CERAMIC	82P J	50V
C1191	403 001 1906	CERAMIC	0.01U M	16V
C1192	403 135 4002	ELECT	47U M	6.3V
C1193	403 070 3702	CERAMIC	120P J	50V
C1194	403 019 1707	CERAMIC	24P J	50V
C1195	403 001 1906	CERAMIC	0.01U M	16V
C1196	403 121 9509	CERAMIC	0.1U Z	50V
C1201	403 135 4002	ELECT	47U M	6.3V
C1202	403 075 3103	CERAMIC	82P J	50V
C1203	403 070 7205	CERAMIC	150P J	50V
C1204	403 070 7205	CERAMIC	150P J	50V
C1205	403 140 9207	NP-ELECT	10U M	16V
C1206	403 107 9905	ELECT	10U M	16V
C1207	403 001 1906	CERAMIC	0.01U M	16V
C1208	403 001 1906	CERAMIC	0.01U M	16V
C1209	403 107 9905	ELECT	10U M	16V
C1210	403 107 9905	ELECT	10U M	16V
C1224	403 075 3103	CERAMIC	82P J	50V

LOCATION	PARTS NO.	DESCRIPTION
C1225	403 001 1906	CERAMIC 0.01U M 16V
C1226	403 017 9705	CERAMIC 22P J 50V
C1227	403 001 1906	CERAMIC 0.01U M 16V
C1228	403 001 1906	CERAMIC 0.01U M 16V
C1229	403 001 1906	CERAMIC 0.01U M 16V
C1230	403 001 1906	CERAMIC 0.01U M 16V
C1231	403 001 1906	CERAMIC 0.01U M 16V
C1232	403 001 1906	CERAMIC 0.01U M 16V
C1233	403 001 1906	CERAMIC 0.01U M 16V
C1234	403 104 8505	CERAMIC 0.047U J 25V
C1235	403 135 5009	ELECT 47U M 10V
C1236	403 001 1906	CERAMIC 0.01U M 16V
C1237	403 017 9705	CERAMIC 22P J 50V
C1238	403 024 1501	CERAMIC 39P J 50V
C1239	403 001 1906	CERAMIC 0.01U M 16V
C1240	403 001 1906	CERAMIC 0.01U M 16V
C1241	403 001 1906	CERAMIC 0.01U M 16V
C1242	403 028 3402	CERAMIC 56P J 50V
C1243	403 104 8505	CERAMIC 0.047U J 25V
C1244	403 143 2809	CERAMIC 0.047U Z 50V
C1245	403 135 5009	ELECT 47U M 10V
C1246	403 001 1906	CERAMIC 0.01U M 16V
C1247	403 135 5009	ELECT 47U M 10V
C1248	403 107 9905	ELECT 10U M 16V
C1249	403 143 2809	CERAMIC 0.047U Z 50V
C1250	403 135 5009	ELECT 47U M 10V
C1251	403 104 8505	CERAMIC 0.047U J 25V
C1252	403 121 2104	ELECT 22U M 10V
C1254	403 001 1906	CERAMIC 0.01U M 16V
C1255	403 121 2104	ELECT 22U M 10V
C1256	403 121 3002	ELECT 4.7U M 25V
C1257	403 121 3002	ELECT 4.7U M 25V
C1258	403 135 4002	ELECT 47U M 6.3V
C1259	403 104 8505	CERAMIC 0.047U J 25V
C1260	403 166 1605	NP-ELECT 4.7U M 25V
C1261	403 121 3002	ELECT 4.7U M 25V
C1262	403 072 4202	CERAMIC 270P J 50V
C1301	403 003 6107	CERAMIC 3300P M 25V
C1302	403 109 6308	ELECT 1U M 50V
C1303	403 001 3801	CERAMIC 1500P K 16V
C1304	403 121 3002	ELECT 4.7U M 25V
C1305	403 001 1906	CERAMIC 0.01U M 16V
C1306	403 109 6308	ELECT 1U M 50V
C1307	403 109 6308	ELECT 1U M 50V
C1308	403 001 1906	CERAMIC 0.01U M 16V
C1309	403 017 9705	CERAMIC 22P J 50V
C1310	403 017 9705	CERAMIC 22P J 50V
C1311	403 001 1906	CERAMIC 0.01U M 16V
C1312	403 001 1906	CERAMIC 0.01U M 16V
C1313	403 025 8608	CERAMIC 43P J 50V
C1314	403 001 1906	CERAMIC 0.01U M 16V
C1316	403 071 1509	CERAMIC 180P J 50V
C1317	403 135 4002	ELECT 47U M 6.3V
C1318	403 001 1906	CERAMIC 0.01U M 16V
C1319	403 003 1805	CERAMIC 2200P M 25V
C1320	403 001 1906	CERAMIC 0.01U M 16V
C1321	403 003 4707	CERAMIC 0.027U J 25V
C1322	403 109 6308	ELECT 1U M 50V
C1323	403 003 1805	CERAMIC 2200P M 25V
C1324	403 001 1906	CERAMIC 0.01U M 16V
C1325	403 001 1906	CERAMIC 0.01U M 16V
C1326	403 001 1906	CERAMIC 0.01U M 16V
C1327	403 001 1906	CERAMIC 0.01U M 16V
C1328	403 001 1906	CERAMIC 0.01U M 16V
C1329	403 001 1906	CERAMIC 0.01U M 16V
C1330	403 001 1906	CERAMIC 0.01U M 16V
C1331	403 135 4002	ELECT 47U M 6.3V
C1332	403 071 1509	CERAMIC 180P J 50V
C1333	403 068 8801	CERAMIC 100P J 50V

LOCATION	PARTS NO.	DESCRIPTION
C1334	403 030 6309	CERAMIC 68P J 50V
C1385	403 001 1906	CERAMIC 0.01U M 16V
D1001	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1002	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1003	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1004	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1005	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1006	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1101	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1151	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1153	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1154	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1225	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1226	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1302	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1303	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
DL101	613 088 0840	DELAY,2H
DL102	613 088 0857	DELAY,0.5H
OR	613 120 1286	DELAY,0.5H
IC101	409 221 1900	IC M52084SP
IC102	409 209 3308	IC VC-2076DP
IC103	409 168 8505	IC MSM6967-RS
IC104	409 182 8901	IC NJM2235L
IC105	409 168 8604	IC MSM6989-RS
IC106	409 225 0800	IC CXL5003P
IC107	409 168 8307	IC BA7607
IC108	409 221 2105	IC CXA1413L
IC109	409 221 2006	IC AN3592K
IC110	409 182 9007	IC NJM2234L
IC111	409 172 6801	IC BA7604N
L1001	613 014 1118	COIL,INDUCTOR 18UHJ
L1045	613 014 1118	COIL,INDUCTOR 18UHJ
L1046	613 014 1200	COIL,INDUCTOR 100UHJ
L1047	613 014 1170	COIL,INDUCTOR 56UHJ
L1049	613 014 1118	COIL,INDUCTOR 18UHJ
L1050	613 014 1101	COIL,INDUCTOR 15UHJ
L1051	613 014 1156	COIL,INDUCTOR 39UHJ
L1052	613 014 1071	COIL,INDUCTOR 8.2UHJ
L1053	613 014 1156	COIL,INDUCTOR 39UHJ
L1054	613 014 1088	COIL,INDUCTOR 10UHJ
L1055	613 014 1231	COIL,INDUCTOR 180UHJ
L1056	613 015 6310	COIL,INDUCTOR 820UHJ
L1057	613 014 1064	COIL,INDUCTOR 6.8UHJ
L1058	613 014 1125	COIL,INDUCTOR 22UHJ
L1059	613 014 1194	COIL,INDUCTOR 82UHJ
L1060	613 014 1187	COIL,INDUCTOR 68UHJ
L1120	613 015 6730	COIL,INDUCTOR 100UHK
L1121	613 015 6730	COIL,INDUCTOR 100UHK
L1122	613 014 1156	COIL,INDUCTOR 39UHJ
L1123	613 014 1156	COIL,INDUCTOR 39UHJ
L1124	613 014 1163	COIL,INDUCTOR 47UHJ

LOCATION	PARTS NO.	DESCRIPTION
L1125	613 014 1095	COIL,INDUCTOR 12UHJ
L1151	613 015 6730	COIL,INDUCTOR 100UHK
L1152	613 015 6730	COIL,INDUCTOR 100UHK
L1153	613 014 1156	COIL,INDUCTOR 39UHJ
L1154	613 014 1156	COIL,INDUCTOR 39UHJ
L1155	613 014 1163	COIL,INDUCTOR 47UHJ
L1156	613 014 1095	COIL,INDUCTOR 12UHJ
L1157	613 015 6730	COIL,INDUCTOR 100UHK
L1158	613 015 6730	COIL,INDUCTOR 100UHK
L1159	613 014 1156	COIL,INDUCTOR 39UHJ
L1160	613 014 1156	COIL,INDUCTOR 39UHJ
L1161	613 014 1163	COIL,INDUCTOR 47UHJ
L1162	613 014 1095	COIL,INDUCTOR 12UHJ
L1191	613 015 6730	COIL,INDUCTOR 100UHK
L1201	613 014 1132	COIL,INDUCTOR 27UHJ
L1202	613 014 1200	COIL,INDUCTOR 100UHJ
L1203	613 014 1163	COIL,INDUCTOR 47UHJ
L1204	613 014 1101	COIL,INDUCTOR 15UHJ
L1205	613 014 1132	COIL,INDUCTOR 27UHJ
L1206	613 014 1170	COIL,INDUCTOR 56UHJ
L1207	613 014 1170	COIL,INDUCTOR 56UHJ
L1208	613 014 1200	COIL,INDUCTOR 100UHJ
L1301	613 015 6594	COIL,INDUCTOR 6.8UHJ
L1302	613 014 1149	COIL,INDUCTOR 33UHJ
L1303	613 014 1101	COIL,INDUCTOR 15UHJ
L1304	613 014 1071	COIL,INDUCTOR 8.2UHJ
L1305	613 014 1071	COIL,INDUCTOR 8.2UHJ
Q1001	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1002	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1003	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1004	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1005	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1006	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1007	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1008	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1009	405 004 4007	TR 2SA608-E-SPA-AC

LOCATION	PARTS NO.	DESCRIPTION
Q1009	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1045	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1046	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1047	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1048	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1049	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 012 9506	TR 2SC2058S-DCTP-Q
Q1050	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 012 9506	TR 2SC2058S-DCTP-Q
Q1051	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1052	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1053	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1054	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1056	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2603	TR 2SC2669-Y-TPE4
Q1101	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1102	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R

LOCATION	PARTS NO.	DESCRIPTION
Q1103	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1104	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1151	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1152	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1153	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1154	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1155	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1156	405 093 0607	TR KSC2785-Y
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
Q1191	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1192	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1201	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1202	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1203	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1204	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC

LOCATION	PARTS NO.	DESCRIPTION
Q1204	405 016 1100	TR 2SC2839-F-SPA-AC
Q1205	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1206	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1207	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1208	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1209	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1210	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1211	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1212	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1213	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1214	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 012 9506	TR 2SC2058S-DCTP-Q
Q1215	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1216	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1217	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-0-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1218	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R

LOCATION	PARTS NO.	DESCRIPTION
Q1218	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1219	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1220	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1221	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1223	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1224	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1225	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1226	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1227	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1228	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1229	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1301	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1304	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1305	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1306	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4

LOCATION	PARTS NO.	DESCRIPTION
Q1306	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1307	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1381	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
R1001	401 019 1802	CARBON 3.9K JA 1/4W
R1002	401 012 5609	CARBON 1K JA 1/4W
R1003	401 012 5609	CARBON 1K JA 1/4W
R1004	401 014 5102	CARBON 15K JA 1/4W
R1005	401 021 4006	CARBON 560 JA 1/4W
R1006	401 020 0702	CARBON 470 JA 1/4W
R1007	401 016 3700	CARBON 2.2K JA 1/4W
R1008	401 019 1802	CARBON 3.9K JA 1/4W
R1009	401 016 7401	CARBON 240 JA 1/4W
R1011	401 021 2903	CARBON 5.6K JA 1/4W
R1012	401 013 5202	CARBON 1.2K JA 1/4W
R1013	401 022 3008	CARBON 6.8K JA 1/4W
R1014	401 022 3008	CARBON 6.8K JA 1/4W
R1015	401 019 2908	CARBON 39K JA 1/4W
R1016	401 012 6903	CARBON 10K JA 1/4W
R1017	401 012 5609	CARBON 1K JA 1/4W
R1018	401 019 1802	CARBON 3.9K JA 1/4W
R1019	401 013 5202	CARBON 1.2K JA 1/4W
R1020	401 017 1705	CARBON 2.7K JA 1/4W
R1021	401 017 0708	CARBON 270 JA 1/4W
R1022	401 022 4005	CARBON 68K JA 1/4W
R1023	401 021 4006	CARBON 56K JA 1/4W
R1024	401 016 3700	CARBON 2.2K JA 1/4W
R1025	401 021 1807	CARBON 560 JA 1/4W
R1026	401 022 1806	CARBON 680 JA 1/4W
R1027	401 021 4907	CARBON 560K JA 1/4W
R1028	401 013 5202	CARBON 1.2K JA 1/4W
R1029	401 012 5609	CARBON 1K JA 1/4W
R1030	401 016 3700	CARBON 2.2K JA 1/4W
R1031	401 021 2903	CARBON 5.6K JA 1/4W
R1032	401 015 2605	CARBON 1.8K JA 1/4W
R1033	401 012 5609	CARBON 1K JA 1/4W
R1034	401 012 5609	CARBON 1K JA 1/4W
R1035	401 016 4707	CARBON 22K JA 1/4W
R1036	401 012 6903	CARBON 10K JA 1/4W
R1037	401 012 6903	CARBON 10K JA 1/4W
R1038	401 016 4707	CARBON 22K JA 1/4W
R1039	401 012 6903	CARBON 10K JA 1/4W
R1040	401 012 5609	CARBON 1K JA 1/4W
R1041	401 018 3708	CARBON 3.3K JA 1/4W
R1042	401 020 1907	CARBON 4.7K JA 1/4W
R1043	401 022 1806	CARBON 680 JA 1/4W
R1044	401 012 5609	CARBON 1K JA 1/4W
R1045	401 012 5609	CARBON 1K JA 1/4W
R1046	401 020 1907	CARBON 4.7K JA 1/4W
R1047	401 020 1907	CARBON 4.7K JA 1/4W
R1049	401 019 0904	CARBON 390 JA 1/4W
R1051	401 019 0904	CARBON 390 JA 1/4W
R1052	401 012 5609	CARBON 1K JA 1/4W
R1053	401 012 6903	CARBON 10K JA 1/4W
R1055	401 023 1607	CARBON 820 JA 1/4W
R1056	401 012 5609	CARBON 1K JA 1/4W
R1058	401 021 1807	CARBON 560 JA 1/4W
R1059	401 017 0708	CARBON 270 JA 1/4W
R1060	401 016 4707	CARBON 22K JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R1061	401 016 4707	CARBON 22K JA 1/4W
R1062	401 012 5609	CARBON 1K JA 1/4W
R1063	401 016 4707	CARBON 22K JA 1/4W
R1064	401 016 4707	CARBON 22K JA 1/4W
R1065	401 012 5609	CARBON 1K JA 1/4W
R1066	401 012 5609	CARBON 1K JA 1/4W
R1067	401 012 5609	CARBON 1K JA 1/4W
R1068	401 014 2804	CARBON 150 JA 1/4W
R1069	401 018 4804	CARBON 33K JA 1/4W
R1070	401 016 4707	CARBON 22K JA 1/4W
R1071	401 017 9206	CARBON 3K JA 1/4W
R1072	401 020 0702	CARBON 470 JA 1/4W
R1073	401 020 0702	CARBON 470 JA 1/4W
R1074	401 012 6903	CARBON 10K JA 1/4W
R1075	401 012 6903	CARBON 10K JA 1/4W
R1076	401 022 1806	CARBON 680 JA 1/4W
R1078	401 016 4707	CARBON 22K JA 1/4W
R1079	401 018 3708	CARBON 3.3K JA 1/4W
R1080	401 012 5609	CARBON 1K JA 1/4W
R1081	401 015 2605	CARBON 1.8K JA 1/4W
R1082	401 016 3700	CARBON 2.2K JA 1/4W
R1083	401 016 3700	CARBON 2.2K JA 1/4W
R1085	401 021 0602	CARBON 56 JA 1/4W
R1086	401 012 5609	CARBON 1K JA 1/4W
R1088	401 012 5609	CARBON 1K JA 1/4W
R1089	401 017 1705	CARBON 2.7K JA 1/4W
R1090	401 015 2605	CARBON 1.8K JA 1/4W
R1091	401 012 5609	CARBON 1K JA 1/4W
R1092	401 020 0702	CARBON 470 JA 1/4W
R1093	401 012 5609	CARBON 1K JA 1/4W
R1094	401 012 5609	CARBON 1K JA 1/4W
R1095	401 012 5609	CARBON 1K JA 1/4W
R1096	401 012 5609	CARBON 1K JA 1/4W
R1098	401 016 4707	CARBON 22K JA 1/4W
R1100	401 014 8509	CARBON 1.6K JA 1/4W
R1101	401 012 5609	CARBON 1K JA 1/4W
R1104	401 012 6903	CARBON 10K JA 1/4W
R1105	401 012 5609	CARBON 1K JA 1/4W
R1106	401 015 9406	CARBON 2K JA 1/4W
R1107	401 103 7505	CARBON 1.5K GA 1/4W
R1108	401 103 7604	CARBON 3.3K GA 1/4W
R1109	401 103 7307	CARBON 470 GA 1/4W
R1110	401 103 7406	CARBON 1K GA 1/4W
R1111	401 018 3708	CARBON 3.3K JA 1/4W
R1112	401 012 5609	CARBON 1K JA 1/4W
R1114	401 014 8509	CARBON 1.6K JA 1/4W
R1115	401 014 4006	CARBON 1.5K JA 1/4W
R1116	401 018 3708	CARBON 3.3K JA 1/4W
R1117	401 018 3708	CARBON 3.3K JA 1/4W
R1118	401 012 5609	CARBON 1K JA 1/4W
R1119	401 012 5609	CARBON 1K JA 1/4W
R1120	401 012 5609	CARBON 1K JA 1/4W
R1121	401 018 3708	CARBON 3.3K JA 1/4W
R1123	401 016 3700	CARBON 2.2K JA 1/4W
R1124	401 012 5609	CARBON 1K JA 1/4W
R1125	401 012 5609	CARBON 1K JA 1/4W
R1126	401 022 1806	CARBON 680 JA 1/4W
R1127	401 016 3700	CARBON 2.2K JA 1/4W
R1128	401 014 2804	CARBON 150 JA 1/4W
R1129	401 018 2701	CARBON 330 JA 1/4W
R1130	401 015 9406	CARBON 2K JA 1/4W
R1151	401 012 9201	CARBON 1M JA 1/4W
R1152	401 012 5609	CARBON 1K JA 1/4W
R1153	401 012 9201	CARBON 1M JA 1/4W
R1154	401 012 9201	CARBON 1M JA 1/4W
R1155	401 012 5609	CARBON 1K JA 1/4W
R1156	401 018 3708	CARBON 3.3K JA 1/4W
R1158	401 016 3700	CARBON 2.2K JA 1/4W
R1159	401 012 5609	CARBON 1K JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R1160	401 012 5609	CARBON 1K JA 1/4W
R1161	401 022 1806	CARBON 680 JA 1/4W
R1162	401 016 3700	CARBON 2.2K JA 1/4W
R1163	401 012 5609	CARBON 1K JA 1/4W
R1164	401 018 3708	CARBON 3.3K JA 1/4W
R1168	401 016 3700	CARBON 2.2K JA 1/4W
R1169	401 022 1806	CARBON 680 JA 1/4W
R1189	401 019 1802	CARBON 3.9K JA 1/4W
R1191	401 022 3008	CARBON 6.8K JA 1/4W
R1192	401 020 1907	CARBON 4.7K JA 1/4W
R1193	401 016 3700	CARBON 2.2K JA 1/4W
R1194	401 012 5609	CARBON 1K JA 1/4W
R1195	401 014 4006	CARBON 1.5K JA 1/4W
R1196	401 012 9201	CARBON 1M JA 1/4W
R1199	401 016 3700	CARBON 2.2K JA 1/4W
R1201	401 012 5609	CARBON 1K JA 1/4W
R1202	401 012 5609	CARBON 1K JA 1/4W
R1203	401 022 4005	CARBON 68K JA 1/4W
R1204	401 019 7705	CARBON 4.3K JA 1/4W
R1205	401 017 0708	CARBON 270 JA 1/4W
R1206	401 021 4006	CARBON 56K JA 1/4W
R1207	401 019 1802	CARBON 3.9K JA 1/4W
R1208	401 013 5202	CARBON 1.2K JA 1/4W
R1209	401 019 7200	CARBON 430 JA 1/4W
R1210	401 019 0904	CARBON 390 JA 1/4W
R1211	401 015 2605	CARBON 1.8K JA 1/4W
R1212	401 021 1807	CARBON 560 JA 1/4W
R1213	401 023 1607	CARBON 820 JA 1/4W
R1214	401 017 1705	CARBON 2.7K JA 1/4W
R1215	401 012 5609	CARBON 1K JA 1/4W
R1216	401 012 6903	CARBON 10K JA 1/4W
R1217	401 012 6903	CARBON 10K JA 1/4W
R1218	401 012 9201	CARBON 1M JA 1/4W
R1219	401 012 6903	CARBON 10K JA 1/4W
R1220	401 012 6903	CARBON 10K JA 1/4W
R1221	401 012 9201	CARBON 1M JA 1/4W
R1222	401 012 9201	CARBON 1M JA 1/4W
R1223	401 012 9201	CARBON 1M JA 1/4W
R1224	401 016 4707	CARBON 22K JA 1/4W
R1225	401 021 0602	CARBON 56 JA 1/4W
R1226	401 021 4006	CARBON 56K JA 1/4W
R1227	401 018 4804	CARBON 33K JA 1/4W
R1228	401 018 2701	CARBON 330 JA 1/4W
R1229	401 012 5609	CARBON 1K JA 1/4W
R1230	401 012 5609	CARBON 1K JA 1/4W
R1231	401 021 4006	CARBON 56K JA 1/4W
R1232	401 021 4006	CARBON 56K JA 1/4W
R1233	401 012 5609	CARBON 1K JA 1/4W
R1234	401 021 1807	CARBON 560 JA 1/4W
R1235	401 021 1807	CARBON 560 JA 1/4W
R1236	401 020 0702	CARBON 470 JA 1/4W
R1237	401 017 0708	CARBON 270 JA 1/4W
R1238	401 019 0904	CARBON 390 JA 1/4W
R1239	401 019 2908	CARBON 39K JA 1/4W
R1240	401 022 4005	CARBON 68K JA 1/4W
R1241	401 023 1607	CARBON 820 JA 1/4W
R1242	401 015 2605	CARBON 1.8K JA 1/4W
R1243	401 012 5609	CARBON 1K JA 1/4W
R1244	401 020 1907	CARBON 4.7K JA 1/4W
R1245	401 021 0602	CARBON 56 JA 1/4W
R1246	401 021 2903	CARBON 5.6K JA 1/4W
R1247	401 021 4006	CARBON 56K JA 1/4W
R1248	401 021 4006	CARBON 56K JA 1/4W
R1249	401 012 5609	CARBON 1K JA 1/4W
R1250	401 012 5609	CARBON 1K JA 1/4W
R1251	401 020 1907	CARBON 4.7K JA 1/4W
R1252	401 022 1806	CARBON 680 JA 1/4W
R1253	401 022 1806	CARBON 680 JA 1/4W
R1254	401 020 0702	CARBON 470 JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R1255	401 013 1303	CARBON 1.1K JA 1/4W
R1256	401 015 2605	CARBON 1.8K JA 1/4W
R1257	401 020 0702	CARBON 470 JA 1/4W
R1258	401 018 4804	CARBON 33K JA 1/4W
R1259	401 020 0702	CARBON 470 JA 1/4W
R1260	401 012 5609	CARBON 1K JA 1/4W
R1261	401 021 4006	CARBON 56K JA 1/4W
R1262	401 021 4006	CARBON 56K JA 1/4W
R1263	401 012 5609	CARBON 1K JA 1/4W
R1264	401 012 5609	CARBON 1K JA 1/4W
R1265	401 020 0702	CARBON 470 JA 1/4W
R1266	401 022 7105	CARBON 750 JA 1/4W
R1267	401 018 1506	CARBON 33 JA 1/4W
R1268	401 012 6903	CARBON 10K JA 1/4W
R1269	401 020 0702	CARBON 470 JA 1/4W
R1270	401 017 0708	CARBON 270 JA 1/4W
R1271	401 018 2701	CARBON 330 JA 1/4W
R1272	401 019 1802	CARBON 3.9K JA 1/4W
R1273	401 015 2605	CARBON 1.8K JA 1/4W
R1274	401 013 5202	CARBON 1.2K JA 1/4W
R1275	401 020 0702	CARBON 470 JA 1/4W
R1279	401 020 0702	CARBON 470 JA 1/4W
R1280	401 021 1807	CARBON 560 JA 1/4W
R1281	401 021 2903	CARBON 5.6K JA 1/4W
R1282	401 020 0702	CARBON 470 JA 1/4W
R1283	401 022 4005	CARBON 68K JA 1/4W
R1284	401 021 4006	CARBON 56K JA 1/4W
R1285	401 012 5609	CARBON 1K JA 1/4W
R1286	401 012 5609	CARBON 1K JA 1/4W
R1287	401 021 0602	CARBON 56 JA 1/4W
R1288	401 012 5609	CARBON 1K JA 1/4W
R1289	401 012 5609	CARBON 1K JA 1/4W
R1290	401 012 5609	CARBON 1K JA 1/4W
R1291	401 022 4005	CARBON 68K JA 1/4W
R1292	401 021 4006	CARBON 56K JA 1/4W
R1293	401 017 1705	CARBON 2.7K JA 1/4W
R1294	401 017 0708	CARBON 270 JA 1/4W
R1295	401 019 1802	CARBON 3.9K JA 1/4W
R1296	401 013 5202	CARBON 1.2K JA 1/4W
R1297	401 013 9408	CARBON 1.3K JA 1/4W
R1298	401 017 0708	CARBON 270 JA 1/4W
R1299	401 012 6903	CARBON 10K JA 1/4W
R1301	401 013 6308	CARBON 12K JA 1/4W
R1302	401 019 0904	CARBON 390 JA 1/4W
R1303	401 012 8006	CARBON 100K JA 1/4W
R1304	401 020 2805	CARBON 47K JA 1/4W
R1305	401 016 3700	CARBON 2.2K JA 1/4W
R1306	401 012 5609	CARBON 1K JA 1/4W
R1307	401 016 2505	CARBON 220 JA 1/4W
R1308	401 013 9408	CARBON 1.3K JA 1/4W
R1309	401 022 7105	CARBON 750 JA 1/4W
R1310	401 019 2908	CARBON 39K JA 1/4W
R1311	401 022 1806	CARBON 680 JA 1/4W
R1313	401 012 6903	CARBON 10K JA 1/4W
R1314	401 012 6903	CARBON 10K JA 1/4W
R1315	401 014 6000	CARBON 150K JA 1/4W
R1316	401 016 2505	CARBON 220 JA 1/4W
R1317	401 021 4006	CARBON 56K JA 1/4W
R1318	401 012 5609	CARBON 1K JA 1/4W
R1319	401 012 6903	CARBON 10K JA 1/4W
R1320	401 020 1907	CARBON 4.7K JA 1/4W
R1321	401 016 3700	CARBON 2.2K JA 1/4W
R1322	401 015 2605	CARBON 1.8K JA 1/4W
R1323	401 021 0602	CARBON 56 JA 1/4W
R1324	401 012 4404	CARBON 100 JA 1/4W
R1325	401 022 1806	CARBON 680 JA 1/4W
R1326	401 019 2908	CARBON 39K JA 1/4W
R1327	401 019 2908	CARBON 39K JA 1/4W
R1328	401 019 0904	CARBON 390 JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R1329	401 019 0904	CARBON 390 JA 1/4W
R1330	401 019 0904	CARBON 390 JA 1/4W
R1331	401 021 4006	CARBON 56K JA 1/4W
R1332	401 022 1806	CARBON 680 JA 1/4W
R1333	401 019 1802	CARBON 3.9K JA 1/4W
R1334	401 023 6909	CARBON 910 JA 1/4W
R1335	401 012 4404	CARBON 100 JA 1/4W
R1336	401 017 2702	CARBON 27K JA 1/4W
R1337	401 013 5202	CARBON 1.2K JA 1/4W
R1340	401 016 4707	CARBON 22K JA 1/4W
R1341	401 020 0702	CARBON 470 JA 1/4W
R1342	401 012 9201	CARBON 1M JA 1/4W
R1344	401 012 5609	CARBON 1K JA 1/4W
R1345	401 012 5609	CARBON 1K JA 1/4W
R1350	401 020 2805	CARBON 47K JA 1/4W
R1351	401 023 2703	CARBON 8.2K JA 1/4W
R1352	401 016 4707	CARBON 22K JA 1/4W
R1353	401 022 7600	CARBON 7.5K JA 1/4W
R1354	401 016 4707	CARBON 22K JA 1/4W
R1355	401 012 6903	CARBON 10K JA 1/4W
R1356	401 016 4707	CARBON 22K JA 1/4W
R1357	401 022 0700	CARBON 68 JA 1/4W
R1358	401 019 0904	CARBON 390 JA 1/4W
R1359	401 021 1807	CARBON 560 JA 1/4W
R1360	401 012 8006	CARBON 100K JA 1/4W
R1361	401 014 5102	CARBON 15K JA 1/4W
R1363	401 017 2702	CARBON 27K JA 1/4W
R1364	401 012 5609	CARBON 1K JA 1/4W
R1365	401 012 5609	CARBON 1K JA 1/4W
R1366	401 012 9201	CARBON 1M JA 1/4W
R1367	401 012 6903	CARBON 10K JA 1/4W
R1368	401 015 3701	CARBON 18K JA 1/4W
R1369	401 012 5609	CARBON 1K JA 1/4W
R1370	401 012 9201	CARBON 1M JA 1/4W
R1371	401 012 9201	CARBON 1M JA 1/4W
R1372	401 018 3708	CARBON 3.3K JA 1/4W
R1373	401 013 6308	CARBON 12K JA 1/4W
R1374	401 022 1806	CARBON 680 JA 1/4W
R1375	401 020 2805	CARBON 47K JA 1/4W
R1376	401 018 3708	CARBON 3.3K JA 1/4W
R1377	401 015 2605	CARBON 1.8K JA 1/4W
R1378	401 017 1705	CARBON 2.7K JA 1/4W
R1380	401 018 2701	CARBON 330 JA 1/4W
R1381	401 018 3708	CARBON 3.3K JA 1/4W
R1386	401 022 0700	CARBON 68 JA 1/4W
R1387	401 012 5609	CARBON 1K JA 1/4W
R1390	401 013 5202	CARBON 1.2K JA 1/4W
R1391	401 018 3708	CARBON 3.3K JA 1/4W
R1392	401 012 5609	CARBON 1K JA 1/4W
R1394	401 020 2805	CARBON 47K JA 1/4W
VR101	613 001 9400	SEMI VR 5K
OR	613 001 9011	SEMI VR 4.7K
VR102	613 001 9455	SEMI VR 100K
OR	613 001 9097	SEMI VR 100K
VR103	613 001 9424	SEMI VR 20KB
OR	613 001 9059	SEMI VR 22KB
OR	613 079 2549	VR.SEMI 20KB
VR104	613 001 9431	SEMI VR 30K
OR	613 001 9066	SEMI VR 33K
OR	613 079 2556	VR.SEMI 30KB
VR105	613 001 9035	SEMI VR 10KB
OR	613 001 9417	SEMI VR 10KB
OR	613 079 2532	VR.SEMI 10KB
VR106	613 001 9424	SEMI VR 20KB
OR	613 001 9059	SEMI VR 22KB
OR	613 079 2549	VR.SEMI 20KB
VR107	613 001 9035	SEMI VR 10KB
OR	613 001 9417	SEMI VR 10KB

LOCATION	PARTS NO.	DESCRIPTION
VR107	613 079 2532	VR,SEMI 10KB
VR108	613 001 9035	SEMI VR 10KB
OR	613 001 9417	SEMI VR 10KB
OR	613 079 2532	VR,SEMI 10KB
VR109	613 001 9035	SEMI VR 10KB
OR	613 001 9417	SEMI VR 10KB
OR	613 079 2532	VR,SEMI 10KB
VR110	613 001 9035	SEMI VR 10KB
OR	613 001 9417	SEMI VR 10KB
OR	613 079 2532	VR,SEMI 10KB
VR111	613 001 9424	SEMI VR 20KB
OR	613 001 9059	SEMI VR 22KB
OR	613 079 2549	VR,SEMI 20KB
VR112	613 001 8977	SEMI VR 1KB
OR	613 079 2525	VR,SEMI 1KB
OR	613 001 9370	SEMI VR 1KB
VR113	613 001 9370	SEMI VR 1KB
OR	613 001 8977	SEMI VR 1KB
OR	613 079 2525	VR,SEMI 1KB
VR114	613 001 9370	SEMI VR 1KB
OR	613 001 8977	SEMI VR 1KB
OR	613 079 2525	VR,SEMI 1KB
VR115	613 001 9370	SEMI VR 1KB
OR	613 001 8977	SEMI VR 1KB
OR	613 079 2525	VR,SEMI 1KB
VR116	613 001 9394	SEMI VR 3KB
OR	613 001 9004	SEMI VR 3.3KB
OR	613 112 4882	VR,SEMI 3KB
VR117	613 001 9370	SEMI VR 1KB
OR	613 001 8977	SEMI VR 1KB
OR	613 079 2525	VR,SEMI 1KB
VR118	613 001 9387	SEMI VR 2K
OR	613 001 8991	SEMI VR 2.2K
OR	613 112 4851	VR,SEMI 2KB
VR119	613 001 9387	SEMI VR 2K
OR	613 001 8991	SEMI VR 2.2K
OR	613 112 4851	VR,SEMI 2KB
VR120	613 001 9387	SEMI VR 2K
OR	613 001 8991	SEMI VR 2.2K
OR	613 112 4851	VR,SEMI 2KB
VR122	613 001 9431	SEMI VR 30K
OR	613 001 9066	SEMI VR 33K
OR	613 079 2556	VR,SEMI 30KB
VR123	613 112 4905	VR,SEMI 500B
OR	613 001 9363	SEMI VR 500
OR	613 001 8953	SEMI VR 470
VR124	613 001 9387	SEMI VR 2K
OR	613 001 8991	SEMI VR 2.2K
OR	613 112 4851	VR,SEMI 2KB
VR126	613 001 9370	SEMI VR 1KB
OR	613 001 8977	SEMI VR 1KB
OR	613 079 2525	VR,SEMI 1KB
X1191	613 088 0871	OSC,CRYSTAL 13.3MHZ
XF101	613 113 8582	FILTER,4MHZ L.P.F
XF102	613 113 8599	FILTER,6.5MHZ L.P.F
XF103	613 120 9169	FILTER,6MHZ L.P.F
XF104	613 113 8605	FILTER,4.43MHZ B.P.F
XF105	613 088 0789	FILTER,6MHZ L.P.F
XF106	613 004 5539	LC PACK 4MHZ LPF
XF107	613 113 8629	TRAP,4.43MHZ
XF108	613 117 3965	TRAP,7.8125KHZ

COMPL,VD-2

COMPL.NO. 613 117 9165

LOCATION	PARTS NO.	DESCRIPTION
B1401	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1402	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1403	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1404	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1460	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1462	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1463	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1501	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1580	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1581	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B1582	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
C1401	403 001 1906	CERAMIC 0.01U M 16V
C1402	403 008 5105	CERAMIC 10P D 50V
C1403	403 014 0200	CERAMIC 18P J 50V
C1404	403 001 1906	CERAMIC 0.01U M 16V
C1405	403 001 1906	CERAMIC 0.01U M 16V
C1406	403 001 1906	CERAMIC 0.01U M 16V
C1407	403 001 1906	CERAMIC 0.01U M 16V
C1408	403 135 4002	ELECT 47U M 6.3V
C1409	403 001 1906	CERAMIC 0.01U M 16V
C1410	403 072 4202	CERAMIC 270P J 50V
C1411	403 071 5408	CERAMIC 220P J 50V
C1412	403 001 1906	CERAMIC 0.01U M 16V
C1413	403 003 4608	CERAMIC 2700P M 25V
C1414	403 071 5408	CERAMIC 220P J 50V
C1415	403 001 1906	CERAMIC 0.01U M 16V
C1416	403 068 8801	CERAMIC 100P J 50V
C1417	403 001 3108	CERAMIC 0.1U Z 16V
C1418	403 001 1906	CERAMIC 0.01U M 16V
C1419	403 135 5801	ELECT 0.1U M 50V
C1420	403 001 1906	CERAMIC 0.01U M 16V
C1421	403 073 6205	CERAMIC 470P J 50V
C1422	403 059 7608	POLYESTER 0.22U J 50V
C1423	403 003 2505	CERAMIC 0.022U J 25V
C1424	403 107 9905	ELECT 10U M 16V
C1425	403 001 1906	CERAMIC 0.01U M 16V
C1426	403 073 6205	CERAMIC 470P J 50V
C1427	403 121 3408	ELECT 2.2U M 50V
C1428	403 121 3032	ELECT 4.7U M 25V
C1429	403 001 1906	CERAMIC 0.01U M 16V
C1430	403 109 6308	ELECT 1U M 50V
C1431	403 003 3700	CERAMIC 0.022U Z 25V
C1432	403 001 1906	CERAMIC 0.01U M 16V
C1433	403 135 4002	ELECT 47U M 6.3V
C1434	403 028 1606	CERAMIC 56P J 50V
C1435	403 069 0309	CERAMIC 1000P J 50V
C1436	403 027 4509	CERAMIC 5P D 50V
C1437	403 135 5801	ELECT 0.1U M 50V
C1438	403 068 8801	CERAMIC 100P J 50V
C1439	403 001 1906	CERAMIC 0.01U M 16V
C1440	403 001 1906	CERAMIC 0.01U M 16V
C1441	403 001 1906	CERAMIC 0.01U M 16V
C1442	403 001 1906	CERAMIC 0.01U M 16V
C1443	403 108 0000	ELECT 0.22U M 50V
C1444	403 010 5704	CERAMIC 12P J 50V
C1445	403 001 1906	CERAMIC 0.01U M 16V
C1446	403 019 9703	CERAMIC 27P J 50V
C1448	403 001 1906	CERAMIC 0.01U M 16V
C1449	403 001 1906	CERAMIC 0.01U M 16V

LOCATION	PARTS NO.	DESCRIPTION
C1450	403 001 1906	CERAMIC 0.01U M 16V
C1460	403 068 8801	CERAMIC 100P J 50V
C1462	403 001 1906	CERAMIC 0.01U M 16V
C1463	403 001 1906	CERAMIC 0.01U M 16V
C1465	403 001 1906	CERAMIC 0.01U M 16V
C1501	403 001 1906	CERAMIC 0.01U M 16V
C1502	403 109 6308	ELECT 1U M 50V
C1503	403 135 4002	ELECT 47U M 6.3V
C1504	403 001 1906	CERAMIC 0.01U M 16V
C1506	403 070 7205	CERAMIC 150P J 50V
C1507	403 001 1906	CERAMIC 0.01U M 16V
C1508	403 135 4002	ELECT 47U M 6.3V
C1509	403 001 1906	CERAMIC 0.01U M 16V
C1510	403 001 1906	CERAMIC 0.01U M 16V
C1511	403 003 5308	CERAMIC 3300P J 25V
C1512	403 109 6308	ELECT 1U M 50V
C1514	403 001 1906	CERAMIC 0.01U M 16V
C1515	403 001 1906	CERAMIC 0.01U M 16V
C1516	403 001 1906	CERAMIC 0.01U M 16V
C1517	403 028 3402	CERAMIC 56P J 50V
C1550	403 001 1906	CERAMIC 0.01U M 16V
C1551	403 001 1906	CERAMIC 0.01U M 16V
C1552	403 135 4002	ELECT 47U M 6.3V
C1553	403 001 1906	CERAMIC 0.01U M 16V
C1554	403 001 1906	CERAMIC 0.01U M 16V
C1555	403 001 1906	CERAMIC 0.01U M 16V
C1556	403 001 1906	CERAMIC 0.01U M 16V
C1557	403 135 4002	ELECT 47U M 6.3V
C1558	403 001 1906	CERAMIC 0.01U M 16V
C1559	403 001 1906	CERAMIC 0.01U M 16V
C1560	403 001 1906	CERAMIC 0.01U M 16V
C1562	403 001 1906	CERAMIC 0.01U M 16V
C1563	403 001 1906	CERAMIC 0.01U M 16V
C1564	403 001 1906	CERAMIC 0.01U M 16V
C1565	403 001 1906	CERAMIC 0.01U M 16V
C1566	403 001 1906	CERAMIC 0.01U M 16V
C1567	403 135 4002	ELECT 47U M 6.3V
C1568	403 022 7703	CERAMIC 33P J 50V
C1569	403 022 7703	CERAMIC 33P J 50V
C1590	403 069 1207	CERAMIC 1000P K 50V
C1591	403 069 1207	CERAMIC 1000P K 50V
C1592	403 071 5408	CERAMIC 220P J 50V
C1593	403 071 5408	CERAMIC 220P J 50V
D1401	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1402	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1501	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1502	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1580	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1581	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1582	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
DL141	613 116 7001	DELAY,2H
OR	613 117 4870	DELAY,2H
IC141	409 224 3406	IC M52059AFP
IC142	409 172 6801	IC BA7604N
IC143	409 182 9007	IC NJM2234L
IC144	409 172 6801	IC BA7604N
IC151	409 001 2400	IC AN6367K
JK154	613 101 5791	JACK,WHITE

LOCATION	PARTS NO.	DESCRIPTION
JK155	613 101 5807	JACK,RED
L1401	613 015 6730	COIL,INDUCTOR 100UHK
L1402	613 015 6730	COIL,INDUCTOR 100UHK
L1403	613 014 1149	COIL,INDUCTOR 33UHJ
L1404	613 015 6365	COIL,INDUCTOR 2.2MHJ
L1405	613 014 1170	COIL,INDUCTOR 56UHJ
L1406	613 014 1163	COIL,INDUCTOR 47UHJ
L1407	613 014 1132	COIL,INDUCTOR 27UHJ
L1409	613 014 1101	COIL,INDUCTOR 15UHJ
L1501	613 014 1149	COIL,INDUCTOR 33UHJ
L1550	613 014 1132	COIL,INDUCTOR 27UHJ
Q1401	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1402	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1403	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1406	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1460	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1501	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1503	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 015 2504	TR 2SC2669-O-TPE4
Q1504	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1505	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1506	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1507	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1508	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC

LOCATION	PARTS NO.	DESCRIPTION
Q1508	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1509	405 016 0905	TR 2SC2839-E-SPA-AC
Q1550	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1551	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 015 2504	TR 2SC2669-O-TPE4
R1401	401 019 2908	CARBON 39K JA 1/4W
R1402	401 016 3700	CARBON 2.2K JA 1/4W
R1403	401 022 1806	CARBON 680 JA 1/4W
R1404	401 023 2703	CARBON 8.2K JA 1/4W
R1405	401 022 4005	CARBON 68K JA 1/4W
R1406	401 019 2908	CARBON 39K JA 1/4W
R1407	401 012 5609	CARBON 1K JA 1/4W
R1408	401 020 0702	CARBON 470 JA 1/4W
R1409	401 016 3700	CARBON 2.2K JA 1/4W
R1410	401 012 5609	CARBON 1K JA 1/4W
R1411	401 018 4804	CARBON 33K JA 1/4W
R1412	401 018 4804	CARBON 33K JA 1/4W
R1413	401 019 2908	CARBON 39K JA 1/4W
R1414	401 015 2605	CARBON 1.8K JA 1/4W
R1415	401 016 4707	CARBON 22K JA 1/4W
R1416	401 014 5102	CARBON 15K JA 1/4W
R1417	401 018 3708	CARBON 3.3K JA 1/4W
R1418	401 012 5609	CARBON 1K JA 1/4W
R1419	401 019 1802	CARBON 3.9K JA 1/4W
R1420	401 012 4404	CARBON 100 JA 1/4W
R1422	401 015 2605	CARBON 1.8K JA 1/4W
R1423	401 015 2605	CARBON 1.8K JA 1/4W
R1424	401 021 4006	CARBON 56K JA 1/4W
R1425	401 017 8506	CARBON 300 JA 1/4W
R1426	401 020 1907	CARBON 4.7K JA 1/4W
R1427	401 016 4707	CARBON 22K JA 1/4W
R1428	401 016 4707	CARBON 22K JA 1/4W
R1429	401 021 9605	CARBON 62K JA 1/4W
R1430	401 016 4707	CARBON 22K JA 1/4W
R1432	401 018 4804	CARBON 33K JA 1/4W
R1433	401 018 4804	CARBON 33K JA 1/4W
R1434	401 012 6903	CARBON 10K JA 1/4W
R1439	401 020 0702	CARBON 470 JA 1/4W
R1440	401 013 5202	CARBON 1.2K JA 1/4W
R1441	401 012 5609	CARBON 1K JA 1/4W
R1442	401 012 5609	CARBON 1K JA 1/4W
R1443	401 012 5609	CARBON 1K JA 1/4W
R1444	401 015 2605	CARBON 1.8K JA 1/4W
R1445	401 016 3700	CARBON 2.2K JA 1/4W
R1446	401 016 3700	CARBON 2.2K JA 1/4W
R1450	401 020 1907	CARBON 4.7K JA 1/4W
R1460	401 012 5609	CARBON 1K JA 1/4W
R1461	401 015 2605	CARBON 1.8K JA 1/4W
R1463	401 020 1907	CARBON 4.7K JA 1/4W
R1464	401 016 3700	CARBON 2.2K JA 1/4W
R1465	401 012 6903	CARBON 10K JA 1/4W
R1501	401 016 7906	CARBON 2.4K JA 1/4W
R1502	401 015 2605	CARBON 1.8K JA 1/4W
R1506	401 021 8103	CARBON 620 JA 1/4W
R1507	401 020 0702	CARBON 470 JA 1/4W
R1508	401 020 0702	CARBON 470 JA 1/4W
R1509	401 019 2908	CARBON 39K JA 1/4W
R1510	401 019 2908	CARBON 39K JA 1/4W
R1511	401 012 5609	CARBON 1K JA 1/4W
R1512	401 019 2908	CARBON 39K JA 1/4W
R1513	401 015 3701	CARBON 18K JA 1/4W
R1514	401 012 5609	CARBON 1K JA 1/4W
R1515	401 023 1607	CARBON 820 JA 1/4W
R1517	401 012 5609	CARBON 1K JA 1/4W
R1518	401 016 3700	CARBON 2.2K JA 1/4W
R1519	401 012 5609	CARBON 1K JA 1/4W
R1520	401 013 6308	CARBON 12K JA 1/4W
R1521	401 018 4804	CARBON 33K JA 1/4W
R1524	401 023 1607	CARBON 820 JA 1/4W
R1525	401 019 0904	CARBON 390 JA 1/4W
R1526	401 014 5102	CARBON 15K JA 1/4W
R1527	401 018 4804	CARBON 33K JA 1/4W
R1528	401 016 4707	CARBON 22K JA 1/4W
R1529	401 016 4707	CARBON 22K JA 1/4W
R1550	401 020 1907	CARBON 4.7K JA 1/4W
R1551	401 012 6903	CARBON 10K JA 1/4W
R1552	401 012 5609	CARBON 1K JA 1/4W
R1553	401 012 5609	CARBON 1K JA 1/4W
R1554	401 018 3708	CARBON 3.3K JA 1/4W
R1556	401 013 5202	CARBON 1.2K JA 1/4W
R1557	401 020 0702	CARBON 470 JA 1/4W
R1558	401 022 4005	CARBON 68K JA 1/4W
R1559	401 017 2702	CARBON 27K JA 1/4W
R1560	401 012 5609	CARBON 1K JA 1/4W
R1561	401 012 5609	CARBON 1K JA 1/4W
R1562	401 012 6903	CARBON 10K JA 1/4W
R1563	401 020 1907	CARBON 4.7K JA 1/4W
R1564	401 012 6903	CARBON 10K JA 1/4W
R1566	401 015 9406	CARBON 2K JA 1/4W
R1567	401 013 5202	CARBON 1.2K JA 1/4W
R1580	401 012 6903	CARBON 10K JA 1/4W
R1581	401 020 1907	CARBON 4.7K JA 1/4W
R1582	401 012 6903	CARBON 10K JA 1/4W
R1590	401 022 1806	CARBON 680 JA 1/4W
R1591	401 022 1806	CARBON 680 JA 1/4W
R1592	401 012 5609	CARBON 1K JA 1/4W
R1593	401 012 5609	CARBON 1K JA 1/4W
VR141	613 001 9431	SEMI VR 30K
OR	613 001 9066	SEMI VR 33K
OR	613 079 2556	VR,SEMI 30KB
VR361	613 119 4724	VR,ROTARY 100KB
VR363	613 119 4724	VR,ROTARY 100KB
X1401	613 115 7514	OSC,CRYSTAL 4.43MHZ
XF141	613 004 5485	LC PACK

COMPL,VP-1

COMPL.NO. 613 113 4744

VIDEO PRE-AMP. CIRCUIT(VP-A)

LOCATION	PARTS NO.	DESCRIPTION
B1801	405 035 1105	TR FMW1-T98
B1802	405 035 1105	TR FMW1-T98
B1803	405 058 5401	TR FMC2-T98
B1804	407 100 7302	DIODE IMN10-T109
B1805	407 100 7302	DIODE IMN10-T109
B1806	405 035 1105	TR FMW1-T98
B1808	405 029 3504	TR DTC144EK-T96
OR	405 018 1900	TR 2SC3395-TB
B1809	405 035 1105	TR FMW1-T98
B1810	405 029 3504	TR DTC144EK-T96
OR	405 018 1900	TR 2SC3395-TB
B1811	405 074 0602	TR IMZ1-T108
B1812	405 074 0602	TR IMZ1-T108
C1801	403 033 4609	CERAMIC 82P J 50V
C1802	403 026 7600	CERAMIC 470P J 50V

LOCATION	PARTS NO.	DESCRIPTION
C1804	403 189 2405	ELECT 10U M 16V
C1805	403 067 9809	CERAMIC 0.1U K 25V
C1806	403 067 9809	CERAMIC 0.1U K 25V
C1808	403 189 2405	ELECT 10U M 16V
C1810	403 189 2405	ELECT 10U M 16V
C1811	403 067 9809	CERAMIC 0.1U K 25V
C1812	403 067 9809	CERAMIC 0.1U K 25V
C1814	403 189 2405	ELECT 10U M 16V
C1815	403 010 1102	CERAMIC 1000P J 50V
C1817	403 033 4609	CERAMIC 82P J 50V
C1818	403 191 8709	ELECT 1U M 50V
C1819	403 191 8709	ELECT 1U M 50V
C1820	403 067 9304	CERAMIC 0.01U K 25V
C1821	403 191 8709	ELECT 1U M 50V
C1822	403 068 2007	CERAMIC 0.022U K 25V
C1823	403 010 1102	CERAMIC 1000P J 50V
C1824	403 067 9304	CERAMIC 0.01U K 25V
C1825	403 068 2007	CERAMIC 0.022U K 25V
C1828	403 067 9304	CERAMIC 0.01U K 25V
C1829	403 163 7907	ELECT 47U M 6.3V
C1830	403 068 3202	CERAMIC 0.033U K 25V
C1831	403 067 9304	CERAMIC 0.01U K 25V
C1832	403 067 9304	CERAMIC 0.01U K 25V
C1833	403 067 9304	CERAMIC 0.01U K 25V
C1834	403 014 3508	CERAMIC 18P J 50V
C1835	403 067 9304	CERAMIC 0.01U K 25V
C1836	403 022 8304	CERAMIC 33P J 50V
C1837	403 163 8409	ELECT 47U M 16V
C1839	403 067 9304	CERAMIC 0.01U K 25V
C1840	403 067 9809	CERAMIC 0.1U K 25V
C1841	403 067 9809	CERAMIC 0.1U K 25V
C1842	403 067 9304	CERAMIC 0.01U K 25V
C1843	403 150 6500	ELECT 22U M 16V
C1844	403 067 9809	CERAMIC 0.1U K 25V
C1845	403 067 9809	CERAMIC 0.1U K 25V
C1846	403 150 6500	ELECT 22U M 16V
C1848	403 067 9304	CERAMIC 0.01U K 25V
C1849	403 073 7301	CERAMIC 470P K 50V
C1850	403 030 7009	CERAMIC 68P J 50V
D1801	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
IC181	409 000 7703	IC AN3311K
L1801	613 014 1057	COIL,INDUCTOR 5.6UHJ
L1802	613 014 1057	COIL,INDUCTOR 5.6UHJ
L1805	613 015 6204	COIL,INDUCTOR 100UHJ
L1806	613 015 6204	COIL,INDUCTOR 100UHJ
L1807	613 014 1101	COIL,INDUCTOR 15UHJ
Q1803	405 014 4400	TR 2SC2412K-T96-Q
OR	405 014 4509	TR 2SC2412K-T96-R
OR	405 014 4608	TR 2SC2412K-T96-S
OR	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
Q1804	405 015 9701	TR 2SC2814-F4-TB
OR	405 078 0400	TR 2SC2413K-T96-P
Q1805	405 015 9701	TR 2SC2814-F4-TB
OR	405 078 0400	TR 2SC2413K-T96-P
Q1806	405 014 4400	TR 2SC2412K-T96-Q
OR	405 014 4509	TR 2SC2412K-T96-R
OR	405 014 4608	TR 2SC2412K-T96-S
OR	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
Q1807	405 004 4601	TR 2SA608-F-SPA-AC
Q1808	405 019 2807	TR 2SC536-F-SPA-AC
Q1809	405 004 4601	TR 2SA608-F-SPA-AC
Q1810	405 019 2807	TR 2SC536-F-SPA-AC

LOCATION	PARTS NO.	DESCRIPTION
Q1811	405 014 4400	TR 2SC2412K-T96-Q
OR	405 014 4509	TR 2SC2412K-T96-R
OR	405 014 4608	TR 2SC2412K-T96-S
OR	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
R1801	401 037 5202	MT-GLAZE 100 JA 1/10W
R1802	401 039 0304	MT-GLAZE 820 JA 1/10W
R1803	401 039 0304	MT-GLAZE 820 JA 1/10W
R1804	401 037 5103	MT-GLAZE 10 JA 1/10W
R1805	401 037 5103	MT-GLAZE 10 JA 1/10W
R1806	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1807	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1808	401 039 0304	MT-GLAZE 820 JA 1/10W
R1809	401 038 2002	MT-GLAZE 270 JA 1/10W
R1810	401 039 0304	MT-GLAZE 820 JA 1/10W
R1811	401 037 5103	MT-GLAZE 10 JA 1/10W
R1812	401 037 5103	MT-GLAZE 10 JA 1/10W
R1813	401 036 1601	MT-GLAZE 2.2K JA 1/8W
R1814	401 036 1601	MT-GLAZE 2.2K JA 1/8W
R1815	401 037 8104	MT-GLAZE 150K JA 1/10W
R1816	401 037 5400	MT-GLAZE 1K JA 1/10W
R1817	401 037 5400	MT-GLAZE 1K JA 1/10W
R1818	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1819	401 037 5202	MT-GLAZE 100 JA 1/10W
R1822	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1823	401 038 0800	MT-GLAZE 22K JA 1/10W
R1824	401 037 5202	MT-GLAZE 100 JA 1/10W
R1825	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R1826	401 038 3801	MT-GLAZE 330K JA 1/10W
R1827	401 037 5400	MT-GLAZE 1K JA 1/10W
R1828	401 037 5400	MT-GLAZE 1K JA 1/10W
R1829	401 037 5608	MT-GLAZE 10K JA 1/10W
R1831	401 037 5400	MT-GLAZE 1K JA 1/10W
R1834	401 036 1700	MT-GLAZE 22K JA 1/8W
R1835	401 038 2002	MT-GLAZE 270 JA 1/10W
R1836	401 036 9607	MT-GLAZE 56 JA 1/8W
R1837	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R1838	401 037 5400	MT-GLAZE 1K JA 1/10W
R1839	401 036 1601	MT-GLAZE 2.2K JA 1/8W
R1840	401 037 5400	MT-GLAZE 1K JA 1/10W
R1841	401 038 3702	MT-GLAZE 33K JA 1/10W
R1842	401 037 8005	MT-GLAZE 15K JA 1/10W
R1843	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1844	401 037 8005	MT-GLAZE 15K JA 1/10W
R1845	401 038 3702	MT-GLAZE 33K JA 1/10W
R1846	401 038 6505	MT-GLAZE 47K JA 1/10W
R1847	401 037 5608	MT-GLAZE 10K JA 1/10W
R1848	401 037 5400	MT-GLAZE 1K JA 1/10W
R1849	401 037 9200	MT-GLAZE 1.8K JA 1/10W
R1850	401 038 6307	MT-GLAZE 470 JA 1/10W
R1851	401 038 6505	MT-GLAZE 47K JA 1/10W
R1852	401 037 5608	MT-GLAZE 10K JA 1/10W
R1853	401 037 5400	MT-GLAZE 1K JA 1/10W
R1854	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1855	401 037 9200	MT-GLAZE 1.8K JA 1/10W
R1856	401 038 9001	MT-GLAZE 680 JA 1/10W
R1857	401 038 6505	MT-GLAZE 47K JA 1/10W
R1858	401 037 5608	MT-GLAZE 10K JA 1/10W
R1859	401 038 0800	MT-GLAZE 22K JA 1/10W
R1860	401 037 5400	MT-GLAZE 1K JA 1/10W
R1861	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1862	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1863	401 037 5400	MT-GLAZE 1K JA 1/10W
R1864	401 038 0503	MT-GLAZE 22 JA 1/10W
R1865	401 038 0503	MT-GLAZE 22 JA 1/10W
R1866	401 038 2002	MT-GLAZE 270 JA 1/10W
R1867	401 038 6505	MT-GLAZE 47K JA 1/10W
R1868	401 037 5608	MT-GLAZE 10K JA 1/10W

LOCATION	PARTS NO.	DESCRIPTION
R1869	401 038 0800	MT-GLAZE 22K JA 1/10W
R1870	401 037 5400	MT-GLAZE 1K JA 1/10W
R1871	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1872	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1873	401 037 5400	MT-GLAZE 1K JA 1/10W
R1874	401 038 0503	MT-GLAZE 22 JA 1/10W
R1875	401 038 0503	MT-GLAZE 22 JA 1/10W
R1877	401 037 8005	MT-GLAZE 15K JA 1/10W
R1881	401 036 1601	MT-GLAZE 2.2K JA 1/8W
R1894	401 036 9607	MT-GLAZE 56 JA 1/8W
VR181	613 002 0369	SEMI VR 2.2KXB
VR182	613 002 0369	SEMI VR 2.2KXB
VR183	613 002 0345	SEMI VR 1KB

AUDIO PRE-AMP. CIRCUIT(AP-A)

LOCATION	PARTS NO.	DESCRIPTION
C2901	403 067 9304	CERAMIC 0.01U K 25V
C2902	403 163 8409	ELECT 47U M 16V
C2903	403 067 9304	CERAMIC 0.01U K 25V
C2904	403 067 9304	CERAMIC 0.01U K 25V
C2905	403 067 9304	CERAMIC 0.01U K 25V
C2906	403 067 9304	CERAMIC 0.01U K 25V
C2907	403 067 9304	CERAMIC 0.01U K 25V
C2908	403 163 7907	ELECT 47U M 6.3V
C2909	403 067 9304	CERAMIC 0.01U K 25V
C2910	403 067 9304	CERAMIC 0.01U K 25V
C2911	403 193 8202	ELECT 0.1U M 50V
C2912	403 067 9304	CERAMIC 0.01U K 25V
C2914	403 069 5601	CERAMIC 0.01U K 50V
C2916	403 193 8202	ELECT 0.1U M 50V
C2917	403 068 0508	CERAMIC 0.1U Z 25V
IC291	409 208 5709	IC UPC2350CS
J2910	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
J2911	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
L2901	613 015 6730	COIL,INDUCTOR 100UHK
L2902	613 015 6730	COIL,INDUCTOR 100UHK
R2901	401 037 5400	MT-GLAZE 1K JA 1/10W
R2903	401 038 0800	MT-GLAZE 22K JA 1/10W
R2904	401 038 0800	MT-GLAZE 22K JA 1/10W
R2907	401 037 5103	MT-GLAZE 10 JA 1/10W
R2908	401 037 5103	MT-GLAZE 10 JA 1/10W
R2911	401 037 7800	MT-GLAZE 150 JA 1/10W

COMPL,AD-2

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	613 117 8649	
	613 079 0798	HOLDER,LEVEL METER
	613 108 4247	HOLDER,LED
	613 108 4254	HOLDER,MIC HEAD PHONE
	411 132 7803	SCR S-TPG BIN 2X8
A2601	613 118 2226	LEVEL METER
B2601	405 063 8404	TR DTC114EL-TL2
C2601	403 139 1007	ELECT 47U M 6.3V
C2602	403 012 6006	CERAMIC 15P J 50V
C2603	403 139 1502	ELECT 10U M 16V
C2604	403 191 8709	ELECT 1U M 50V
C2605	403 189 2405	ELECT 10U M 16V
C2609	403 139 1502	ELECT 10U M 16V
C2610	403 139 1502	ELECT 10U M 16V
C2611	403 001 1609	CERAMIC 0.01U K 16V
C2612	403 001 1609	CERAMIC 0.01U K 16V
D2604	407 131 1102	LED EBR3668S
D2608	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2609	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
IC261	409 117 9201	IC BA15218N
JK261	613 087 2791	JACK,MIC
JK262	613 091 4071	JACK,HEADPHONE
L2601	613 014 1200	COIL,INDUCTOR 100UHJ
L2602	613 014 1200	COIL,INDUCTOR 100UHJ
R2601	401 012 6903	CARBON 10K JA 1/4W
R2602	401 012 8006	CARBON 100K JA 1/4W
R2603	401 013 1808	CARBON 11K JA 1/4W
R2604	401 014 6000	CARBON 150K JA 1/4W
R2605	401 012 5609	CARBON 1K JA 1/4W
R2606	401 014 5102	CARBON 15K JA 1/4W
R2609	401 012 6903	CARBON 10K JA 1/4W
R2610	401 012 6903	CARBON 10K JA 1/4W
R2611	401 012 5609	CARBON 1K JA 1/4W
R2613	401 019 0904	CARBON 390 JA 1/4W
R2619	401 021 2903	CARBON 5.6K JA 1/4W
R2620	401 018 3708	CARBON 3.3K JA 1/4W
RR261	613 103 9490	IR RECEIVER PACK UNIT
S2601	613 081 0939	SLIDE SWITCH 2-3
S2602	613 081 0922	SLIDE SWITCH 1-2
S2603	613 006 3649	PUSH SWITCH,EJECT
OR	613 079 4130	SW,PUSH,EJECT
OR	613 092 1734	SW,PUSH,EJECT
OR	613 092 0751	SW,PUSH,EJECT
S2604	613 006 3649	PUSH SWITCH,POWER
OR	613 079 4130	SW,PUSH,POWER
OR	613 092 1734	SW,PUSH,POWER
OR	613 092 0751	SW,PUSH,POWER
VR241	613 001 9417	SEMI VR 10KB
OR	613 079 2532	VR,SEMI 10KB
VR242	613 001 9417	SEMI VR 10KB
OR	613 079 2532	VR,SEMI 10KB
VR260	613 108 5442	VR,ROTARY 10KB
VR261	613 108 5435	VR,ROTARY 10KB
VR262	613 108 5442	VR,ROTARY 10KB
VR265	613 108 5435	VR,ROTARY 10KB
VR267	613 108 5459	VR,ROTARY 20KB

COMPL,CP-B

COMPL.NO. 613 117 9639

TUNER CIRCUIT(TN-B)

LOCATION	PARTS NO.	DESCRIPTION
	613 082 5223	HOLDER,TN-5
B6001	405 003 7603	TR 2SA1345-AC
OR	405 000 2205	TR DTA144ES-DCTP
OR	405 063 9104	TR DTA144EL-TL2
B6002	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B6004	405 063 9104	TR DTA144EL-TL2
B6005	405 063 9104	TR DTA144EL-TL2
B6006	405 063 9708	TR DTC144EL-TL2
B6007	405 063 9708	TR DTC144EL-TL2
B6008	405 063 9708	TR DTC144EL-TL2
B6009	405 063 9708	TR DTC144EL-TL2

LOCATION	PARTS NO.	DESCRIPTION
C6006	403 125 5606	ELECT 100U M 16V
C6008	403 109 6308	ELECT 1U M 50V
C6009	403 135 7409	ELECT 22U M 50V
C6010	403 121 9509	CERAMIC 0.1U Z 50V
C6016	403 125 5606	ELECT 100U M 16V
C6017	403 001 1906	CERAMIC 0.01U M 16V
D6001	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6003	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6004	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6005	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6008	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6009	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6010	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6011	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6012	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6014	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D6015	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
IC601	409 026 8203	IC L5631
OR	409 057 5103	IC UPC574J
IC602	409 148 5005	IC M6M80021P
L6006	613 015 2695	HF CHOKE
Q6002	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q6003	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
R6001	401 018 2701	CARBON 330 JA 1/4W
R6002	401 019 0904	CARBON 390 JA 1/4W
R6006	401 019 3905	CARBON 390K JA 1/4W
R6007	401 020 3802	CARBON 470K JA 1/4W
R6008	401 012 5609	CARBON 1K JA 1/4W
R6010	401 012 6903	CARBON 10K JA 1/4W
R6015	401 012 6903	CARBON 10K JA 1/4W
R6016	401 012 6903	CARBON 10K JA 1/4W
R6021	401 012 6903	CARBON 10K JA 1/4W
R6023	401 012 6903	CARBON 10K JA 1/4W
R6024	401 012 6903	CARBON 10K JA 1/4W
R6025	401 012 6903	CARBON 10K JA 1/4W
R6027	401 012 6903	CARBON 10K JA 1/4W

TIMER CIRCUIT(TM-B)

LOCATION	PARTS NO.	DESCRIPTION
D7001	407 120 5807	DIODE AK04-V2
R7001	401 012 6903	CARBON 10K JA 1/4W
R7002	401 012 6903	CARBON 10K JA 1/4W
R7003	401 012 6903	CARBON 10K JA 1/4W
R7004	401 012 6903	CARBON 10K JA 1/4W
R7005	401 012 6903	CARBON 10K JA 1/4W
R7006	401 012 6903	CARBON 10K JA 1/4W
R7118	401 012 5609	CARBON 1K JA 1/4W
R7119	401 012 5609	CARBON 1K JA 1/4W
RB701	613 017 2853	RESISTOR PACK 10K X4 J
OR	613 079 5878	R-NETWORK,10KX4

RF CONVERTER CIRCUIT(CV-B)

LOCATION	PARTS NO.	DESCRIPTION
C6601	403 134 8100	ELECT 100U M 6.3V
C6602	403 134 8100	ELECT 100U M 6.3V
L6601	613 015 6631	COIL,INDUCTOR 15UHK
OR	613 014 8667	HF CHOKE
L6602	613 014 0739	COIL,INDUCTOR 1.0UHM
R6603	401 013 5202	CARBON 1.2K JA 1/4W
R6604	401 019 1802	CARBON 3.9K JA 1/4W

COMPL,PW-1

COMPL.NO. 613 118 0345

LOCATION	PARTS NO.	DESCRIPTION
⚠	613 041 8326	COVER,FUSE
	411 021 6603	SCR S-TPG BIN 3X8,AC INLET
B5101	405 018 2808	TR 2SC3402-AC
B5102	405 018 2501	TR 2SC3399-AC
B5103	405 018 2808	TR 2SC3402-AC
B5104	405 018 2501	TR 2SC3399-AC
B5751	405 018 2501	TR 2SC3399-AC
B5752	405 018 2501	TR 2SC3399-AC
C5001 ⚠	404 044 7900	MT-POLYEST 0.22U M 250V
C5002 ⚠	404 044 7108	MT-POLYEST 0.047U M 250V
C5003	404 044 7306	ELECT 68U M 400V
OR	404 044 7207	ELECT 68U M 400V
C5004	403 183 3309	MT-POLYEST 0.047U M 630V
C5005	403 137 5007	CERAMIC 100P K 1K
C5006	403 076 8800	CERAMIC 220P K 1K
C5007	403 155 3603	ELECT 1U M 400V
C5008	403 094 2408	OS-SOLID 4.7U M 16V
C5009	403 061 7702	POLYESTER 4700P J 50V
C5010	403 056 7502	POLYESTER 1000P J 50V
C5011	403 001 5003	CERAMIC 2200P K 16V
C5013	403 168 6103	MT-POLYEST 0.1U J 50V
C5020 ⚠	404 034 7200	CERAMIC 1000P M 400V
OR ⚠	404 034 6302	CERAMIC 1000P K 400V
C5021 ⚠	404 034 7200	CERAMIC 1000P M 400V
OR ⚠	404 034 6302	CERAMIC 1000P K 400V
C5022 ⚠	404 034 7507	CERAMIC 2200P M 400V
OR ⚠	404 032 6304	CERAMIC 2200P M 400V
C5023 ⚠	404 034 7507	CERAMIC 2200P M 400V
OR ⚠	404 032 6304	CERAMIC 2200P M 400V
C5101	403 094 8400	OS-SOLID 15U M 25V
C5102	403 195 8200	ELECT 220U M 25V
C5103	403 094 9605	OS-SOLID 4.7U M 25V
C5104	403 195 8101	ELECT 120U M 25V
C5105	403 194 5705	ELECT 470U M 25V
C5106	403 176 2005	ELECT 2200U M 10V
C5107	403 160 4909	ELECT 470U M 10V
C5108	403 159 4606	ELECT 100U M 16V
C5109	403 136 0300	ELECT 4.7U M 50V
C5110	403 121 6607	ELECT 47U M 50V
C5112	403 160 2400	ELECT 330U M 6.3V
C5113	403 004 0500	CERAMIC 0.047U K 25V
C5114	403 156 8706	ELECT 0.47U M 50V
C5115	403 121 6607	ELECT 47U M 50V
C5117	403 002 4708	CERAMIC 0.1U Z 25V

LOCATION	PARTS NO.	DESCRIPTION
C5118	403 125 5606	ELECT 100U M 16V
C5119	403 002 4708	CERAMIC 0.1U Z 25V
C5120	403 135 5009	ELECT 47U M 10V
C5121	403 001 1609	CERAMIC 0.01U K 16V
C5122	403 107 9905	ELECT 10U M 16V
C5123	403 001 1609	CERAMIC 0.01U K 16V
C5124	403 156 8003	ELECT 47U M 10V
C5125	403 002 4708	CERAMIC 0.1U Z 25V
C5126	403 160 1205	ELECT 100U M 6.3V
C5127	403 156 9109	ELECT 3.3U M 50V
C5128	403 129 5701	ELECT 47U M 25V
C5129	403 135 9403	ELECT 47U M 35V
C5130	403 134 9602	ELECT 47U M 16V
C5131	403 134 9602	ELECT 47U M 16V
C5132	403 160 1205	ELECT 100U M 6.3V
C5751	403 041 9405	ELECT 10U M 16V
C5752	403 001 1906	CERAMIC 0.01U M 16V
C5753	403 001 1906	CERAMIC 0.01U M 16V
C5754	403 003 7104	CERAMIC 0.033U M 25V
C5755	403 070 3702	CERAMIC 120P J 50V
C5756	403 069 1207	CERAMIC 1000P K 50V
C5757	403 022 5907	CERAMIC 33P J 50V
C5758	403 001 1906	CERAMIC 0.01U M 16V
C5759	403 028 3402	CERAMIC 56P J 50V
C5760	403 001 1906	CERAMIC 0.01U M 16V
C5761	403 001 1906	CERAMIC 0.01U M 16V
C5762	403 001 1906	CERAMIC 0.01U M 16V
C5763	403 001 1906	CERAMIC 0.01U M 16V
CN501	613 093 0040	CONNECTOR,AC INLET
OR	613 120 7912	CONNECTOR,AC INLET
D5001	407 124 0501	DIODE LB156-LF-A
D5003	407 091 6704	DIODE AP01C-V0
D5004	407 100 6909	DIODE AG01-V2
OR	407 091 6902	DIODE ERA38-04-V5
D5005	407 078 2705	DIODE 1SS244-T-77
D5006	407 050 9104	ZENER DIODE GZB16C
D5007	407 078 2705	DIODE 1SS244-T-77
D5008	407 078 2705	DIODE 1SS244-T-77
D5009	407 006 0902	DIODE ERB12-02U14ATP
D5010	407 136 8809	DIODE ERA15-04A-V5
OR	407 004 9808	DIODE DSK10E-BT
D5011	407 097 0300	PHOTO COUPLE PC113A
D5101	407 100 9108	DIODE DLE30C-KC9
D5102	407 100 6909	DIODE AG01-V2
OR	407 091 6902	DIODE ERA38-04-V5
D5103	407 129 2005	DIODE RL2Z-LF-B1
D5104	407 009 5904	DIODE RK44 LF-K2
D5105	407 100 6909	DIODE AG01-V2
OR	407 091 6902	DIODE ERA38-04-V5
D5106	407 100 6909	DIODE AG01-V2
OR	407 091 6902	DIODE ERA38-04-V5
D5107	407 078 2705	DIODE 1SS244-T-77
D5108	407 100 6909	DIODE AG01-V2
OR	407 091 6902	DIODE ERA38-04-V5
D5109	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D5110	407 063 9702	ZENER DIODE MTZJ9.1C-T-77
D5111	407 004 9709	DIODE DSK10C-BT
OR	407 005 8701	DIODE ERA15-02-V5
D5112	407 004 9709	DIODE DSK10C-BT
OR	407 005 8701	DIODE ERA15-02-V5
D5114	407 099 5303	ZENER DIODE MTZJ5.6B-T-77
D5115	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D5116	407 099 5204	ZENER DIODE MTZJ5.1B-T-77
D5117	407 078 2705	DIODE 1SS244-T-77
D5118	407 012 4406	DIODE 1SS133-T-77

LOCATION	PARTS NO.	DESCRIPTION
D5118	407 007 9904	DIODE GMA01-BT
D5119	407 004 9709	DIODE DSK10C-BT
OR	407 005 8701	DIODE ERA15-02-V5
D5120	407 099 5105	ZENER DIODE MTZJ4.7B-T-77
D5121	407 099 6508	ZENER DIODE MTZJ12A-T-77
D5122	407 099 6508	ZENER DIODE MTZJ12A-T-77
F5001 ⚠	423 006 1305	FUSE 250V 2A
IC511	409 067 7203	IC L5431-AA
IC512	409 214 4307	IC L88MS12T-FA
IC513	409 237 8108	IC PQ30RV11
L5002 ⚠	613 088 9966	LF CHOKE
L5101	613 017 0354	CORE
L5102	613 110 4198	COIL,INDUCTOR 10UH K
L5103	613 116 5342	COIL,INDUCTOR 22UH K
L5104	613 017 0354	CORE
L5105	613 015 2695	HF CHOKE
L5751	613 015 6082	COIL,INDUCTOR 10UHJ
L5752	613 014 1057	COIL,INDUCTOR 5.6UHJ
OR	613 014 4577	HF CHOKE
L5753	613 014 0739	COIL,INDUCTOR 1.0UHM
OR	613 014 4256	HF CHOKE
Q5001	405 103 4106	TR 2SK1460-YA7
Q5002	405 017 9600	TR 2SC3330-T-AC
Q5003	405 105 0700	TR 2SB1050-R
Q5101	405 088 9400	TR 2SA1704-S-AN
Q5102	405 089 2400	TR 2SC4484-S-AN
Q5103	405 089 2400	TR 2SC4484-S-AN
Q5104	405 024 0409	TR 2SD545-F-NP-AA
Q5751	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
Q5752	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q5753	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q5754	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
Q5755	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q5756	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
R5001	401 001 8000	SOLID 2.7M MA 1/2W
OR	401 001 7904	SOLID 2.7M KA 1/2W
R5003	401 069 4402	OXIDE-MT 68K JA 2W
R5004	401 090 4709	OXIDE-MT 220K JA 1W
R5005	401 069 4402	OXIDE-MT 68K JA 2W
R5007	401 009 4707	CARBON 33 JA 1/2W
R5008	401 006 9903	CARBON 100 JA 1/2W
R5009	401 012 8006	CARBON 100K JA 1/4W
R5010	401 012 4404	CARBON 100 JA 1/4W
R5011	401 011 8809	CARBON 1 JA 1/4W
R5012	401 016 1409	CARBON 22 JA 1/4W
R5013	401 012 6903	CARBON 10K JA 1/4W
R5014	401 017 2702	CARBON 27K JA 1/4W
R5015	401 057 6005	OXIDE-MT 0.56 JA 1W
R5016	401 090 1104	CARBON 1M JA 1/2W
R5101 ⚠	402 059 5607	FUSIBLE RES 1 JA 1/4W
R5102	401 016 3700	CARBON 2.2K JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R5104	401 013 5202	CARBON 1.2K JA 1/4W
R5105	401 012 4404	CARBON 100 JA 1/4W
R5106	401 107 5200	MT-FILM 560 FD 1/4W
R5107	401 107 5309	MT-FILM 620 FD 1/4W
R5108	401 107 4302	MT-FILM 160 FD 1/4W
R5109	401 012 6903	CARBON 10K JA 1/4W
R5110	401 011 1800	CARBON 680 JA 1/2W
R5111	401 011 1800	CARBON 680 JA 1/2W
R5112	401 020 1907	CARBON 4.7K JA 1/4W
R5113	401 022 7600	CARBON 7.5K JA 1/4W
R5114	401 016 3700	CARBON 2.2K JA 1/4W
R5115	401 021 1807	CARBON 560 JA 1/4W
R5116	401 012 5609	CARBON 1K JA 1/4W
R5117 ⚠	402 035 5706	FUSIBLE RES 3.9 JA 1/4W
R5118	401 012 5609	CARBON 1K JA 1/4W
R5119	401 107 2209	MT-FILM 10K FD 1/4W
R5120	401 107 2506	MT-FILM 30K FD 1/4W
R5121	401 019 0904	CARBON 390 JA 1/4W
R5122	401 011 5402	CARBON 820 JA 1/2W
R5123	401 011 5402	CARBON 820 JA 1/2W
R5124	401 013 6308	CARBON 12K JA 1/4W
R5125	401 021 8905	CARBON 6.2K JA 1/4W
R5126 ⚠	402 004 2002	FUSIBLE RES 470 JA 1/4W
R5751	401 012 5609	CARBON 1K JA 1/4W
R5752	401 012 6903	CARBON 10K JA 1/4W
R5753	401 017 1705	CARBON 2.7K JA 1/4W
R5754	401 016 4707	CARBON 22K JA 1/4W
R5755	401 015 3701	CARBON 18K JA 1/4W
R5756	401 018 1506	CARBON 33 JA 1/4W
R5757	401 013 5202	CARBON 1.2K JA 1/4W
R5758	401 014 5102	CARBON 15K JA 1/4W
R5759	401 014 5102	CARBON 15K JA 1/4W
R5760	401 013 5202	CARBON 1.2K JA 1/4W
R5761	401 018 2701	CARBON 330 JA 1/4W
R5762	401 023 0600	CARBON 82 JA 1/4W
R5763	401 020 0702	CARBON 470 JA 1/4W
R5764	401 012 5609	CARBON 1K JA 1/4W
R5765	401 020 1907	CARBON 4.7K JA 1/4W
R5766	401 020 1907	CARBON 4.7K JA 1/4W
R5767	401 012 5609	CARBON 1K JA 1/4W
R5768	401 012 3308	CARBON 10 JA 1/4W
R5769	401 012 3308	CARBON 10 JA 1/4W
T5001 ⚠	613 120 7929	TRANS.SW
VR511	613 002 0383	SEMI VR 4.7K

COMPL,PW-2

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	613 113 3150	
IC521	409 184 0200	IC STK5445

IF PACK

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	613 122 1062	
C6101	403 028 4409	CERAMIC 56P J 50V
C6102	403 012 7003	CERAMIC 15P J 50V
C6103	403 033 4708	CERAMIC 82P J 50V
C6104	403 069 9500	CERAMIC 0.01U Z 50V
C6105	403 069 9500	CERAMIC 0.01U Z 50V
C6106	403 069 9500	CERAMIC 0.01U Z 50V
C6107	403 069 9500	CERAMIC 0.01U Z 50V
C6109	403 042 3006	ELECT 100U M 16V
C6110	403 069 9500	CERAMIC 0.01U Z 50V
C6111	403 068 0409	CERAMIC 0.1U Z 25V
C6112	403 069 1702	CERAMIC 1000P K 50V
C6113	403 050 0509	ELECT 2.2U M 50V
C6114	403 069 9500	CERAMIC 0.01U Z 50V
C6115	403 109 9200	CERAMIC 27P J 50V
C6116	403 069 9500	CERAMIC 0.01U Z 50V
C6117	403 048 4809	ELECT 0.33U M 50V
C6118	403 069 9500	CERAMIC 0.01U Z 50V
C6119	403 069 9500	CERAMIC 0.01U Z 50V
C6120	403 068 0409	CERAMIC 0.1U Z 25V
C6123	403 069 9500	CERAMIC 0.01U Z 50V
C6124	403 042 3006	ELECT 100U M 16V
C6125	403 068 0409	CERAMIC 0.1U Z 25V
C6130	403 069 9500	CERAMIC 0.01U Z 50V
C6131	403 069 9500	CERAMIC 0.01U Z 50V
C6132	403 010 8606	CERAMIC 12P J 50V
C6133	403 030 7405	CERAMIC 68P J 50V
C6134	403 068 0409	CERAMIC 0.1U Z 25V
C6136	403 014 3409	CERAMIC 18P J 50V
C6137	403 188 1805	CERAMIC 93P H 50V
C6138	403 048 6902	ELECT 0.47U M 50V
C6139	403 022 8403	CERAMIC 33P J 50V
C6140	403 049 0800	ELECT 1U M 50V
C6141	403 010 8705	CERAMIC 12P J 50V
C6142	403 073 1200	CERAMIC 0.033U K 50V
C6144	403 047 0604	ELECT 4.7U M 25V
C6152	403 012 6808	CERAMIC 15P J 50V
C6155	403 069 9500	CERAMIC 0.01U Z 50V
D6101	407 053 8906	ZENER DIODE MTZ9.1C
D6102	407 103 5305	DIODE 1SS318-TT51
IC611	409 036 0105	IC M51366SP
J6107	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
J6108	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
J6109	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
J6112	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
J6116	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
J6117	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
J6124	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
J6125	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
L6101	613 014 0661	COIL,INDUCTOR 0.27UHM
L6103	613 014 0746	COIL,INDUCTOR 1.2UHM
L6104	613 014 0807	COIL,INDUCTOR 3.9UHK
L6105	613 014 0913	COIL,INDUCTOR 33UHK
L6106	613 095 2462	TRANS,IF
L6107	613 103 3979	TRANS,IF
L6108	613 014 0845	COIL,INDUCTOR 8.2UHK
L6109	613 088 8396	TRANS,IF
L6110	613 098 6047	COIL,CHOKE 1.5UH
L6111	613 014 0692	COIL,INDUCTOR 0.47UHM
Q6101	405 090 3304	TR 2SC3838K-ADP-T96
Q6102	405 004 3901	TR 2SA608-E-NP
Q6103	405 015 8407	TR 2SC2812-L5-TB
Q6105	405 015 8407	TR 2SC2812-L5-TB
Q6106	405 015 8407	TR 2SC2812-L5-TB
R6101	402 023 4506	FUSIBLE RES 27 JA 1/2W
R6103	401 038 7700	MT-GLAZE 5.6K JA 1/10W
R6104	401 037 5400	MT-GLAZE 1K JA 1/10W
R6105	401 038 0503	MT-GLAZE 22 JA 1/10W
R6106	401 035 4603	MT-GLAZE 100 JA 1/8W
R6107	401 038 0602	MT-GLAZE 220 JA 1/10W
R6109	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R6110	401 038 6604	MT-GLAZE 470K JA 1/10W
R6111	401 037 9309	MT-GLAZE 18K JA 1/10W
R6112	401 038 6604	MT-GLAZE 470K JA 1/10W
R6113	401 038 7809	MT-GLAZE 56K JA 1/10W
R6114	401 038 9209	MT-GLAZE 6.8K JA 1/10W
R6115	401 038 5102	MT-GLAZE 3.9K JA 1/10W
R6116	401 038 7700	MT-GLAZE 5.6K JA 1/10W

LOCATION	PARTS NO.	DESCRIPTION
R6117	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R6118	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R6119	401 038 2101	MT-GLAZE 2.7K JA 1/10W
R6120	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R6121	401 039 0601	MT-GLAZE 820K JA 1/10W
R6122	401 039 0403	MT-GLAZE 8.2K JA 1/10W
R6123	401 038 3504	MT-GLAZE 330 JA 1/10W
R6124	401 039 0403	MT-GLAZE 8.2K JA 1/10W
R6125	401 038 3504	MT-GLAZE 330 JA 1/10W
R6126	401 037 5400	MT-GLAZE 1K JA 1/10W
R6127	401 036 8105	MT-GLAZE 470 JA 1/8W
R6128	401 037 1709	MT-GLAZE 68 JA 1/8W
R6129	401 037 5202	MT-GLAZE 100 JA 1/10W
R6130	401 038 3702	MT-GLAZE 33K JA 1/10W
R6136	401 038 6307	MT-GLAZE 470 JA 1/10W
R6137	401 038 7205	MT-GLAZE 5.1K JA 1/10W
R6138	401 037 5202	MT-GLAZE 100 JA 1/10W
R6139	401 037 5400	MT-GLAZE 1K JA 1/10W
R6140	401 037 5608	MT-GLAZE 10K JA 1/10W
R6141	401 037 5608	MT-GLAZE 10K JA 1/10W
R6142	401 037 5400	MT-GLAZE 1K JA 1/10W
R6144	401 037 5202	MT-GLAZE 100 JA 1/10W
R6145	401 039 0304	MT-GLAZE 820 JA 1/10W
R6146	401 038 6208	MT-GLAZE 47 JA 1/10W
R6147	401 038 6505	MT-GLAZE 47K JA 1/10W
R6148	401 037 9200	MT-GLAZE 1.8K JA 1/10W
R6149	401 038 3504	MT-GLAZE 330 JA 1/10W
R6152	401 037 5400	MT-GLAZE 1K JA 1/10W
R6153	401 038 6307	MT-GLAZE 470 JA 1/10W
R6155	401 038 7601	MT-GLAZE 560 JA 1/10W
R6156	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R6157	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R6159	401 037 5608	MT-GLAZE 10K JA 1/10W
R6160	401 037 5400	MT-GLAZE 1K JA 1/10W
R6166	401 038 0503	MT-GLAZE 22 JA 1/10W
R6167	401 038 0602	MT-GLAZE 220 JA 1/10W
VR611	613 001 8977	SEMI VR 1KB
X6101	421 002 6607	SAW F TSF1336L
X6102	422 000 8907	SAW F SAF32.9MC70Z
X6104	613 084 1667	FILTER
X6105	613 095 3063	FILTER.6.55MHZ
X6108	613 113 9220	FILTER
X6111	613 095 3070	DISCR.CERAMIC

COMPL.TN-5.NICAM

COMPL.NO. 613 088 3742

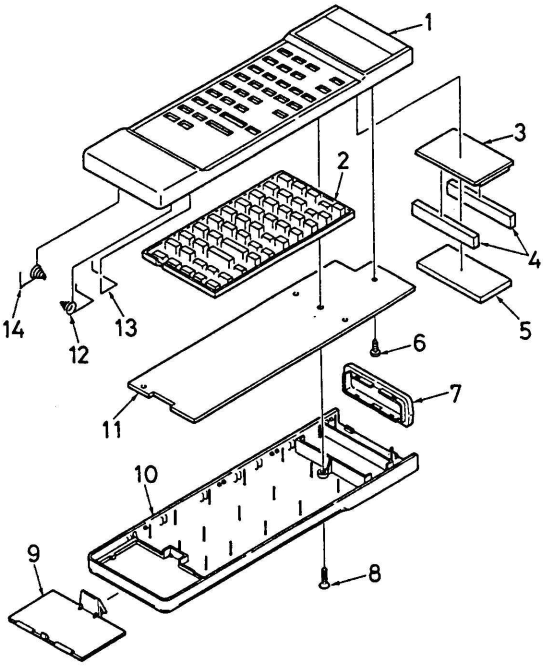
LOCATION	PARTS NO.	DESCRIPTION
B6701	405 076 6305	TR DTC314T-STP
B6702	405 076 6305	TR DTC314T-STP
C6701	403 001 2309	CERAMIC 0.01U N 16V
C6702	403 001 2309	CERAMIC 0.01U N 16V
C6703	403 048 6902	ELECT 0.47U M 50V
C6704	403 048 6902	ELECT 0.47U M 50V
C6705	403 001 2309	CERAMIC 0.01U N 16V
C6706	403 001 2309	CERAMIC 0.01U N 16V
C6707	403 014 0200	CERAMIC 18P J 50V
C6708	403 028 1606	CERAMIC 56P J 50V
C6709	403 014 0200	CERAMIC 18P J 50V
C6710	403 048 6902	ELECT 0.47U M 50V
C6711	403 001 2309	CERAMIC 0.01U N 16V
C6712	403 001 2309	CERAMIC 0.01U N 16V
C6713	403 042 3006	ELECT 100U M 16V
C6714	403 001 2309	CERAMIC 0.01U N 16V
C6715	403 001 2309	CERAMIC 0.01U N 16V
C6716	403 121 9509	CERAMIC 0.1U Z 50V
C6717	403 121 9509	CERAMIC 0.1U Z 50V
C6718	403 009 3001	CERAMIC 100P J 50V
C6719	403 009 3001	CERAMIC 100P J 50V
C6720	403 001 2309	CERAMIC 0.01U N 16V
C6721	403 038 2006	ELECT 100U M 6.3V
C6722	403 012 5900	CERAMIC 15P J 50V
C6723	403 012 5900	CERAMIC 15P J 50V
C6724	403 012 5900	CERAMIC 15P J 50V
C6725	403 014 0200	CERAMIC 18P J 50V
C6726	403 028 1606	CERAMIC 56P J 50V
C6727	403 023 9607	CERAMIC 39P J 50V
C6728	403 001 2309	CERAMIC 0.01U N 16V
C6729	403 001 2309	CERAMIC 0.01U N 16V
C6730	403 121 9509	CERAMIC 0.1U Z 50V
C6731	403 121 9509	CERAMIC 0.1U Z 50V
C6732	403 001 2309	CERAMIC 0.01U N 16V
C6733	403 038 9005	ELECT 33U M 6.3V
C6734	403 041 9405	ELECT 10U M 16V
C6735	403 001 2309	CERAMIC 0.01U N 16V
C6736	403 038 2006	ELECT 100U M 6.3V
C6737	403 043 9601	ELECT 47U M 16V
C6738	403 001 2309	CERAMIC 0.01U N 16V
C6739	403 001 2309	CERAMIC 0.01U N 16V
C6740	403 043 9601	ELECT 47U M 16V
C6741	403 017 7404	CERAMIC 22P J 50V
C6742	403 017 7404	CERAMIC 22P J 50V
C6743	403 001 2309	CERAMIC 0.01U N 16V
C6744	403 038 9708	ELECT 330U M 6.3V
C6745	403 062 8302	POLYESTER 680P J 50V
C6746	403 039 2609	ELECT 47U M 6.3V
C6747	403 087 3801	STYRENE 1200P J 50V
C6748	403 038 6301	ELECT 220U M 6.3V
C6749	403 087 3801	STYRENE 1200P J 50V
C6750	403 038 2006	ELECT 100U M 6.3V
C6751	403 039 2609	ELECT 47U M 6.3V
C6752	403 062 8302	POLYESTER 680P J 50V
C6753	403 046 2104	ELECT 3.3U M 25V
C6754	403 046 2104	ELECT 3.3U M 25V
C6755	403 046 2104	ELECT 3.3U M 25V
C6756	403 046 2104	ELECT 3.3U M 25V
C6757	403 067 5603	MT-COMPO 0.1U J 50V
C6758	403 067 5603	MT-COMPO 0.1U J 50V
C6759	403 046 2104	ELECT 3.3U M 25V
C6760	403 046 2104	ELECT 3.3U M 25V
C6761	403 001 2309	CERAMIC 0.01U N 16V
C6762	403 043 9601	ELECT 47U M 16V
C6763	403 041 9405	ELECT 10U M 16V
C6764	403 001 2309	CERAMIC 0.01U N 16V
C6765	403 038 2006	ELECT 100U M 6.3V
C6766	403 038 2006	ELECT 100U M 6.3V
C6767	403 001 2309	CERAMIC 0.01U N 16V
C6768	403 048 6902	ELECT 0.47U M 50V
C6769	403 041 9405	ELECT 10U M 16V
CT671	613 002 6255	TRIMMER
D6701	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D6702	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
IC671	409 161 5204	IC TA8662N
IC672	409 089 6109	IC LC3664NL-12
OR	410 063 3502	IC CXK5864BP-12L
OR	410 064 8803	IC CXK5864BP-12LL
IC673	409 161 5303	IC TC6011N
IC674	409 141 9109	IC TA78L010AP
IC675	409 163 2102	IC TD6710AN
IC676	409 018 5203	IC LA6462D
IC677	409 051 3006	IC TC4053BP

LOCATION	PARTS NO.	DESCRIPTION
IC678	409 040 1105	IC NJM79L05A
L6701	613 015 2596	HF CHOKE
L6702	613 015 2596	HF CHOKE
L6703	613 014 0777	COIL,INDUCTOR 2.2UHM
L6704	613 014 0777	COIL,INDUCTOR 2.2UHM
Q6701	405 019 1909	TR 2SC536-E-NP-AA
OR	405 019 2708	TR 2SC536-F-NP-AA
Q6702	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
R6701	401 012 4404	CARBON 100 JA 1/4W
R6702	401 017 0708	CARBON 270 JA 1/4W
R6703	401 012 6903	CARBON 10K JA 1/4W
R6704	401 016 3700	CARBON 2.2K JA 1/4W
R6705	401 023 0600	CARBON 82 JA 1/4W
R6706	401 016 5704	CARBON 220K JA 1/4W
R6707	401 014 6000	CARBON 150K JA 1/4W
R6708	401 022 1806	CARBON 680 JA 1/4W
R6709	401 020 7800	CARBON 510 JA 1/4W
R6710	401 012 5609	CARBON 1K JA 1/4W
R6711	401 019 2908	CARBON 39K JA 1/4W
R6712	401 012 5609	CARBON 1K JA 1/4W
R6713	401 020 0702	CARBON 470 JA 1/4W
R6714	401 019 2908	CARBON 39K JA 1/4W
R6715	401 012 5609	CARBON 1K JA 1/4W
R6716	401 020 2805	CARBON 47K JA 1/4W
R6717	401 020 2805	CARBON 47K JA 1/4W
R6718	401 020 2805	CARBON 47K JA 1/4W
R6719	401 020 2805	CARBON 47K JA 1/4W
R6720	401 020 2805	CARBON 47K JA 1/4W
R6721	401 020 2805	CARBON 47K JA 1/4W
R6722	401 022 4005	CARBON 68K JA 1/4W
R6723	401 018 4804	CARBON 33K JA 1/4W
R6724	401 018 4804	CARBON 33K JA 1/4W
R6725	401 019 1802	CARBON 3.9K JA 1/4W
R6726	401 019 0904	CARBON 390 JA 1/4W
R6727	401 016 3700	CARBON 2.2K JA 1/4W
R6728	401 012 6903	CARBON 10K JA 1/4W
R6729	401 019 1802	CARBON 3.9K JA 1/4W
R6730	401 019 0904	CARBON 390 JA 1/4W
R6731	401 016 3700	CARBON 2.2K JA 1/4W
R6732	401 012 6903	CARBON 10K JA 1/4W
R6733	401 017 2702	CARBON 27K JA 1/4W
R6734	401 018 3708	CARBON 3.3K JA 1/4W
R6735	401 017 2702	CARBON 27K JA 1/4W
R6736	401 018 3708	CARBON 3.3K JA 1/4W
R6737	401 012 5609	CARBON 1K JA 1/4W
R6738	401 017 2702	CARBON 27K JA 1/4W
R6739	401 012 5609	CARBON 1K JA 1/4W
R6740	401 017 2702	CARBON 27K JA 1/4W
R6741	401 017 2702	CARBON 27K JA 1/4W
R6742	401 017 2702	CARBON 27K JA 1/4W
R6743	401 017 2702	CARBON 27K JA 1/4W
R6744	401 021 2903	CARBON 5.6K JA 1/4W
R6745	401 012 5609	CARBON 1K JA 1/4W
R6746	401 012 5609	CARBON 1K JA 1/4W
R6747	401 012 6903	CARBON 10K JA 1/4W
R6748	401 017 2702	CARBON 27K JA 1/4W
X6701	613 084 3227	OSC CRYSTAL,6.552MHZ
X6702	613 084 3234	OSC CRYSTAL,5.824MHZ
X6703	613 084 3258	RESONATOR,CERAMIC 16.93M
XF671	613 084 3173	FILTER,6.552MHZ
XF672	613 088 3537	FILTER,14KHZ L.P.F
OR	613 112 2260	FILTER,14KHZ L.P.F
XF673	613 088 3537	FILTER,14KHZ L.P.F

LOCATION	PARTS NO.	DESCRIPTION
XF673	613 112 2260	FILTER,14KHZ L.P.F
COMPL,TN-7		
COMPL.NO.	613 109 4420	
B6901	405 018 1900	TR 2SC3395-TB
OR	405 029 3504	TR DTC144EK-T96
C6901	403 068 0409	CERAMIC 0.1U Z 25V
C6902	403 189 2405	ELECT 10U M 16V
C6903	403 072 3403	CERAMIC 0.022U Z 50V
C6904	403 193 8400	ELECT 0.22U M 50V
C6921	403 068 0409	CERAMIC 0.1U Z 25V
D6901	407 004 0706	DIODE DCB015-TB
OR	407 003 3609	DIODE DAN202K-T-96
D6902	407 003 5108	DIODE DA204K-T96
J6901	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
Q6901	405 015 8308	TR 2SC2812-L4-TB
OR	405 015 8407	TR 2SC2812-L5-TB
OR	405 014 4400	TR 2SC2412K-T96-Q
OR	405 014 4509	TR 2SC2412K-T96-R
Q6902	405 030 7201	TR 2SA1338-4-TB
OR	405 030 7300	TR 2SA1338-5-TB
Q6903	405 015 8308	TR 2SC2812-L4-TB
OR	405 015 8407	TR 2SC2812-L5-TB
OR	405 014 4400	TR 2SC2412K-T96-Q
OR	405 014 4509	TR 2SC2412K-T96-R
R6901	401 037 5400	MT-GLAZE 1K JA 1/10W
R6902	401 038 3504	MT-GLAZE 330 JA 1/10W
R6903	401 038 8509	MT-GLAZE 620 JA 1/10W
R6904	401 037 5608	MT-GLAZE 10K JA 1/10W
R6905	401 038 3801	MT-GLAZE 330K JA 1/10W
R6906	401 037 5608	MT-GLAZE 10K JA 1/10W
R6907	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R6908	401 039 0205	MT-GLAZE 82 JA 1/10W
R6909	401 037 5400	MT-GLAZE 1K JA 1/10W
R6910	401 038 7106	MT-GLAZE 510 JA 1/10W
R6911	401 038 7700	MT-GLAZE 5.6K JA 1/10W
R6912	401 038 5102	MT-GLAZE 3.9K JA 1/10W
T6901	613 109 0958	TRANS,IF
OR	613 109 0965	TRANS,IF
COMPL,TM-1		
COMPL.NO.	613 118 0314	
	613 108 4230	HOLDER,TUBE
	411 021 6207	SCR S-TPG BIN 3X8,JK711
A7101	613 113 2672	FLUORESCENT TUBE
C7102	403 014 2501	CERAMIC 18P J 50V
C7103	403 017 0108	CERAMIC 20P J 50V
C7104	403 001 1609	CERAMIC 0.01U K 16V
C7105	403 139 1601	ELECT 22U M 16V
C7106	403 001 1609	CERAMIC 0.01U K 16V
C7107	403 001 1609	CERAMIC 0.01U K 16V
C7108	403 139 2608	ELECT 0.47U M 50V
C7111	403 121 9509	CERAMIC 0.1U Z 50V
C7113	403 139 1502	ELECT 10U M 16V
C7190	403 071 6207	CERAMIC 220P K 50V
C7191	403 071 6207	CERAMIC 220P K 50V
D7103	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77

LOCATION	PARTS NO.	DESCRIPTION
D7104	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7105	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7106	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7107	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7108	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7109	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7110	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7116	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7118	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7124	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7125	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
IC711	409 226 6207	IC M50959-405SP
IC712	409 032 3308	IC MN1280-L
JK711	613 108 7897	BOARD,TERMINAL,S-VHS,VD·AD JACK
R7101	401 012 9201	CARBON 1M JA 1/4W
R7102	401 110 6201	CARBON 10M JA 1/4W
R7103	401 018 5702	CARBON 330K JA 1/4W
R7104	401 012 5609	CARBON 1K JA 1/4W
R7106	401 012 5609	CARBON 1K JA 1/4W
R7108	401 012 5609	CARBON 1K JA 1/4W
R7110	401 012 5609	CARBON 1K JA 1/4W
R7116	401 016 4707	CARBON 22K JA 1/4W
R7117	401 012 6903	CARBON 10K JA 1/4W
R7122	401 012 5609	CARBON 1K JA 1/4W
R7123	401 012 5609	CARBON 1K JA 1/4W
R7124	401 018 4804	CARBON 33K JA 1/4W
R7129	401 020 2805	CARBON 47K JA 1/4W
R7161	401 018 3708	CARBON 3.3K JA 1/4W
R7190	401 022 6702	CARBON 75 JA 1/4W
R7191	401 022 6702	CARBON 75 JA 1/4W
R7192	401 022 6702	CARBON 75 JA 1/4W
R7193	401 012 5609	CARBON 1K JA 1/4W
R7194	401 012 5609	CARBON 1K JA 1/4W
R7195	401 012 5609	CARBON 1K JA 1/4W
RB712	613 079 5878	R-NETWORK,10KX4
OR	613 017 2853	RESISTOR PACK 10K X4 J
S7150	613 081 0939	SLIDE SWITCH 2-3
S7151	613 081 0922	SLIDE SWITCH 1-2
X7101	613 089 4069	RESONATOR,CERAMIC 6MHZ
OR	613 108 9570	RESONATOR,CERAMIC 6MHZ
X7102	613 109 0972	OSC,CRYSTAL 32KHZ

LOCATION	PARTS NO.	DESCRIPTION
REMOCON		
COMPL.NO.	613 113 3617	
1	613 113 9640	ASSY,CABINET,TOP
2	613 113 9251	BUTTON
3	613 087 0087	LCD
4	613 080 9520	CONNECTOR
5	613 080 9728	SPACER
6	411 022 7807	SCR S-TPG PAN 2X6
7	613 080 9681	SIGN WINDOW
8	411 101 7308	SCR S-TPG FLT 2.6X10
9	613 040 1724	BATTERY LID
10	613 040 0727	BOTTOM LID
11	613 110 1128	COMPL,RM-1(C2&C7 DESCRETE PARTS)
OR	613 118 7856	COMPL,RM-1(C2&C7 CHIP PARTS)
12	613 080 9759	TERMINAL,-(INCLUDE RM-1)
13	613 080 9742	TERMINAL,+(INCLUDE RM-1)
14	613 080 9735	TERMINAL



LOCATION	PARTS NO.	DESCRIPTION
COMPL,RM-1		
COMPL.NO.	613 110 1128	(C2&C7 DESCRETE PARTS)
COMPL.NO.	613 118 7856	(C2&C7 CHIP PARTS)
C1	403 068 0409	CERAMIC 0.1U Z 25V
C2	403 049 0800	ELECT 1U M 50V(DESCRETE)
OR	403 152 8502	ELECT 1U M 50V(CHIP)
C3	613 087 2043	CAP,TRIM 20P
C4	403 068 0409	CERAMIC 0.1U Z 25V
C5	403 068 0409	CERAMIC 0.1U Z 25V
C6	403 068 0409	CERAMIC 0.1U Z 25V
C7	403 038 1603	ELECT 100U M 6.3V(DESCRETE)
OR	403 153 0901	ELECT 100U M 6.3V(CHIP)
IC1	409 218 2309	IC LC5863H-1120
IC2	409 129 3402	IC UPD74HC08G
OR	409 208 1909	IC MLC74HC08AM
OR	409 221 3102	IC MC74HC08AF
LED1	407 040 3709	LED SLR-932A
Q1	405 021 2406	TR 2SD1048-X7-TB
OR	405 021 2505	TR 2SD1048-X8-TB
R1	401 037 5202	MT-GLAZE 100 JA 1/10W
R2	401 015 6405	CARBON 2.2 JA 1/4W
R3	401 037 5202	MT-GLAZE 100 JA 1/10W
R5	401 039 0601	MT-GLAZE 820K JA 1/10W
X1	613 082 8156	OSC,CRYSTAL 38.2293KHZ

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VHR-S700E (U.K)

BLOCK DIAGRAMS, CIRCUIT DIAGRAMS & PRINTED CIRCUIT BOARDS

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IC301 (μPD75516GF) SYSTEM CONTROL MPU PIN FUNCTIONS TABLE 59
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IC711 (M50959) TIMER MPU PIN FUNCTIONS TABLE 61

VD-1 BOARD VIDEO CIRCUIT VARIOUS TERMINAL VOLTAGE TABLE 62

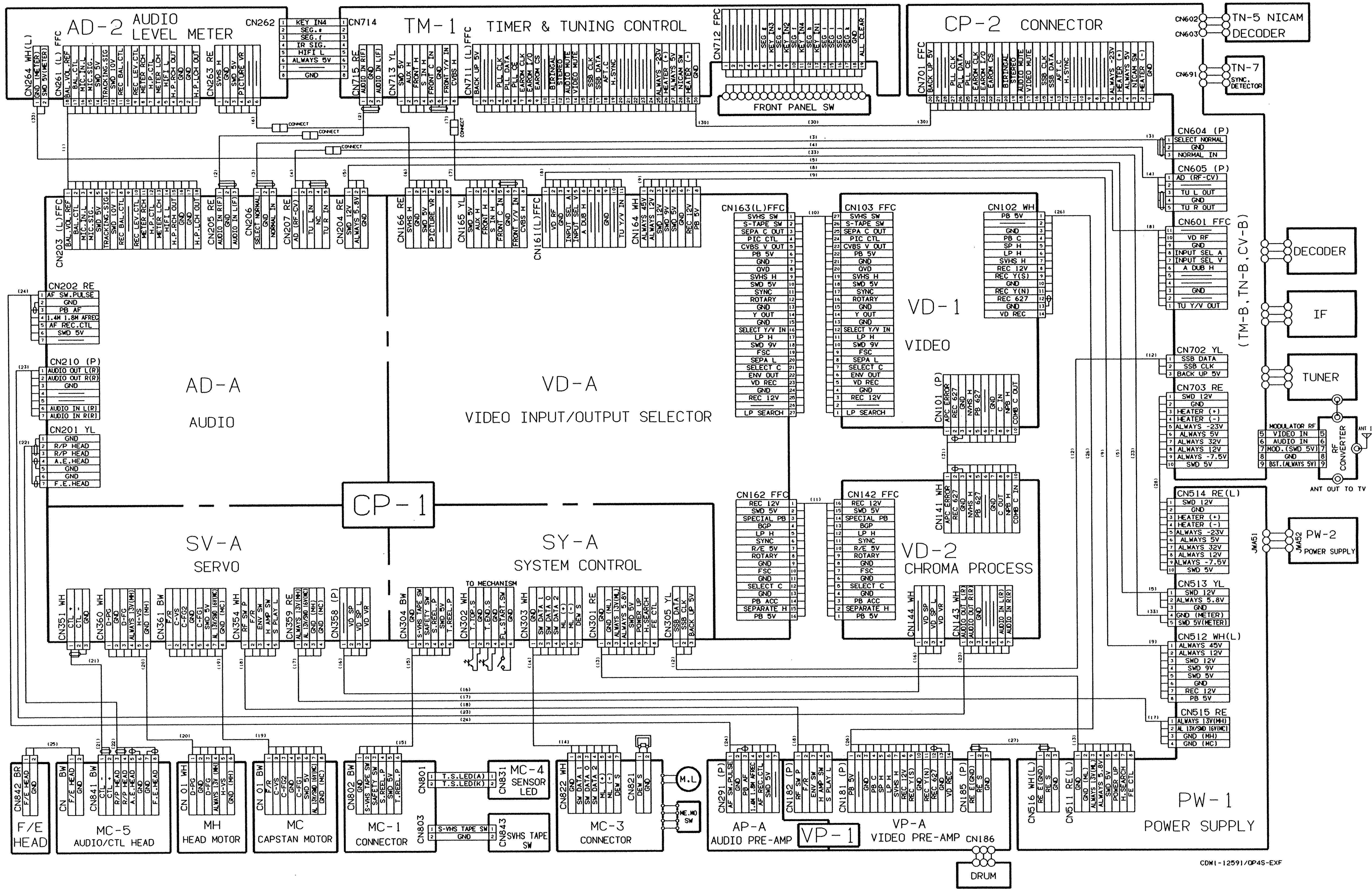
NOTES:

1. All resistance values in "OHMS" unless otherwise noted. (K = 1,000 M = 1,000,000)
2. All capacitance values in "μfd" unless otherwise noted.
   p = pico farad
3. All inductance values in "mH" unless otherwise noted. μ = micro henry

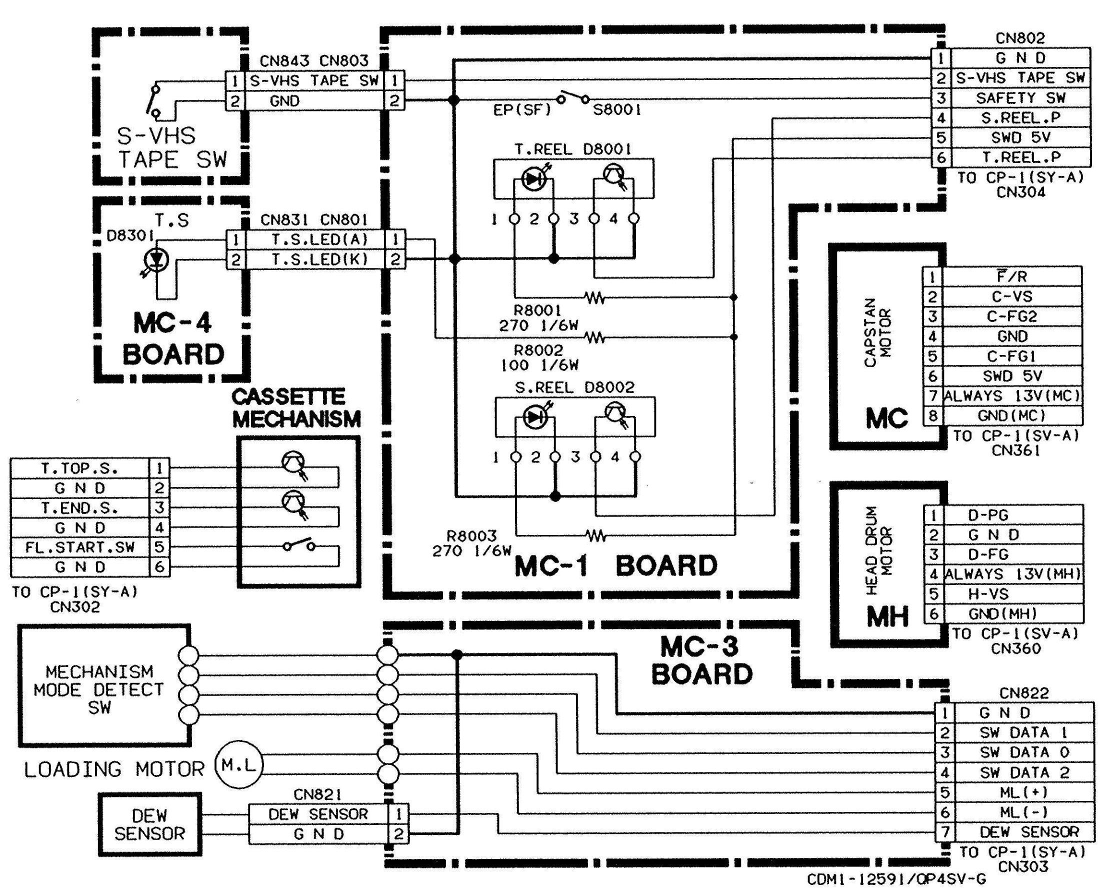
PRODUCT SAFETY NOTICE

THE COMPONENTS DESIGNATED BY A SYMBOL (⚠) IN THIS SCHEMATIC DIAGRAM DESIGNATES COMPONENTS WHOSE VALUE ARE OF SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. SHOULD ANY COMPONENT DESIGNATED BY A SIMBOL NEED TO BE REPLACED, USE ONLY THE PART DESIGNATED IN THE PARTS LIST. DO NOT DEVIATE FROM THE RESISTANCE, WATTAGE AND VOLTAGE RATINGS SHOWN.

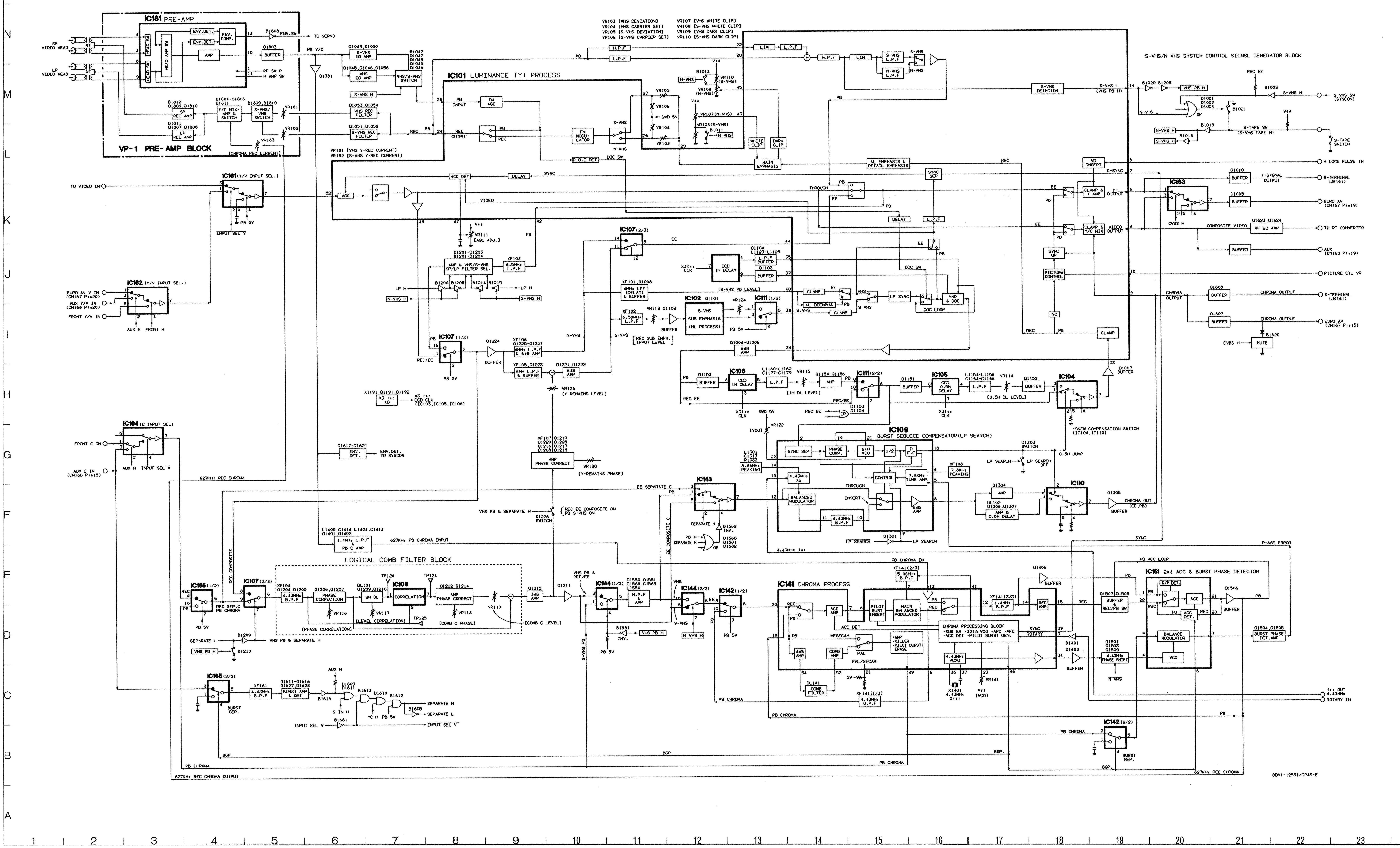
OVERALL WIRING DIAGRAM


AD-2 AUDIO LEVEL METER
TM-1 TIMER & TUNING CONTROL
FRONT PANEL SW
CP-2 CONNECTOR
TN-5 NICAM DECODER
TN-7 SYNC. DETECTOR
(TM-B, TN-B, CV-B)
DECODER
IF
TUNER
RF CONVERTER
ANT IN
ANT OUT TO TV
PW-2 POWER SUPPLY
AD-A AUDIO
VD-A VIDEO INPUT/OUTPUT SELECTOR
VD-1 VIDEO
VD-2 CHROMA PROCESS
CP-1
SV-A SERVO
SY-A SYSTEM CONTROL
TO MECHANISM
F/E HEAD
MC-5 AUDIO/CTL HEAD
MH HEAD MOTOR
MC CAPSTAN MOTOR
MC-1 CONNECTOR
MC-4 SENSOR LED
SVHS TAPE SW
MC-3 CONNECTOR
AP-A AUDIO PRE-AMP
VP-1
VP-A VIDEO PRE-AMP
DRUM
PW-1 POWER SUPPLY
CDM1-12591/OP4S-EXF

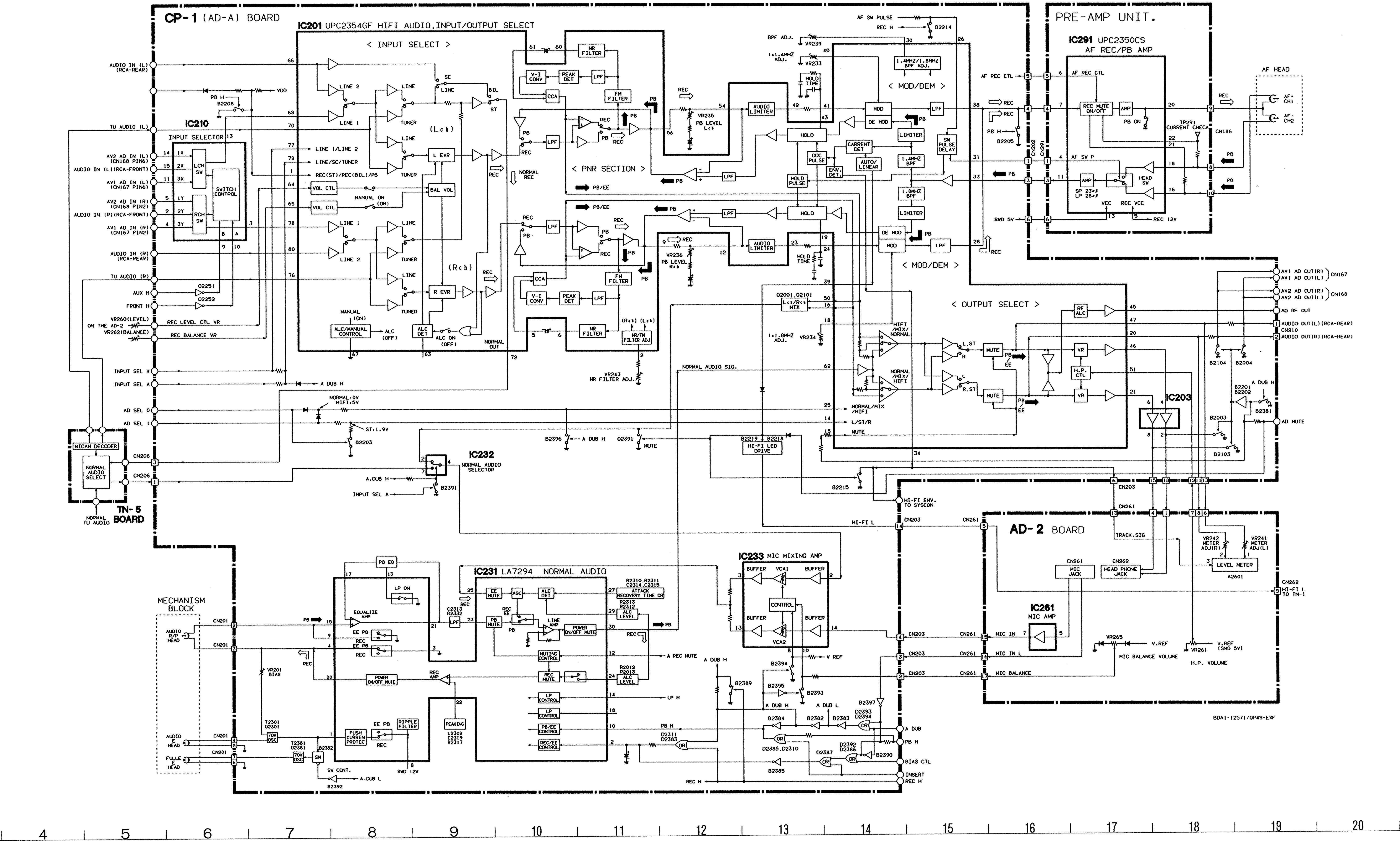
MECHANISM CONNECTION CIRCUIT DIAGRAM


S-VHS TAPE SW
MC-4 BOARD
T.S
D8301
CN843 CN803
S-VHS TAPE SW
GND
CN831 CN801
T.S.LED(A)
T.S.LED(K)
CASSETTE MECHANISM
T.TOP.S.
GND
T.END.S.
GND
FL.START.SW
GND
TO CP-1(SY-A) CN302
EP(SF) S8001
T.REEL D8001
R8001 270 1/6W
R8002 100 1/6W
S.REEL D8002
R8003 270 1/6W
MC-1 BOARD
CN802
GND
S-VHS TAPE SW
SAFETY SW
S.REEL.P
SWD 5V
T.REEL.P
TO CP-1(SY-A) CN304
CAPSTAN MOTOR
MC
F/R
C-VS
C-FG2
GND
C-FG1
SWD 5V
ALWAYS 13V(MC)
GND(MC)
TO CP-1(SY-A) CN361
HEAD DRUM MOTOR
MH
D-PG
GND
D-FG
ALWAYS 13V(MH)
H-VS
GND(MH)
TO CP-1(SY-A) CN360
MC-3 BOARD
MECHANISM MODE DETECT SW
LOADING MOTOR
M.L
DEW SENSOR
CN821
DEW SENSOR
GND
CN822
GND
SW DATA 1
SW DATA 0
SW DATA 2
ML(+)
ML(-)
DEW SENSOR
TO CP-1(SY-A) CN303
CDM1-12591/OP4SV-G

VIDEO CIRCUIT BASIC BLOCK DIAGRAM


IC181 PRE-AMP
VP-1 PRE-AMP BLOCK
SP VIDEO HEAD
LP VIDEO HEAD
ENV. DET.
ENV. COMP.
AMP
BUFFER
TO SERVO
PB Y/C
RF SW P
H AMP SW
SP REC AMP
LP REC AMP
Y/C MIX-AMP & SWITCH
S-VHS/VHS SWITCH
[CHROMA REC CURRENT]
VR181 [VHS Y-REC CURRENT]
VR182 [S-VHS Y-REC CURRENT]
S-VHS EQ AMP
VHS EQ AMP
VHS/S-VHS SWITCH
VHS REC FILTER
S-VHS REC FILTER
VR103 [VHS DEVIATION]
VR104 [VHS CARRIER SET]
VR105 [S-VHS DEVIATION]
VR106 [S-VHS CARRIER SET]
VR107 [VHS WHITE CLIP]
VR108 [S-VHS WHITE CLIP]
VR109 [VHS DARK CLIP]
VR110 [S-VHS DARK CLIP]
IC101 LUMINANCE (Y) PROCESS
FM AGC
FM MODULATOR
D.O.C DET
AGC DET
DELAY
LIM
L.P.F
H.P.F
S-VHS L.P.F
N-VHS L.P.F
WHITE CLIP
DARK CLIP
MAIN EMPHASIS
NL EMPHASIS & DETAIL EMPHASIS
S-VHS DETECTOR
S-VHS/N-VHS SYSTEM CONTROL SIGNSL GENERATOR BLOCK
S-VHS SW (SYSCON)
S-TAPE SWITCH
VD INSERT
SYNC SEP
CLAMP & Y AMP
CLAMP & Y/C MIX
Y-OUTPUT
VIDEO OUTPUT
SYNC UP
PICTURE CONTROL
CHROMA OUTPUT
V LOCK PULSE IN
S-TERMINAL (JK161)
EURO AV (CN167 Pin19)
TO RF CONVERTER
AUX (CN168 Pin19)
PICTURE CTL VR
EURO AV (CN167 Pin15)
RF EQ AMP
MUTE
TU VIDEO IN
IC161 (Y/V INPUT SEL.)
IC162 (Y/V INPUT SEL.)
EURO AV V IN (CN167 Pin20)
AUX Y/V IN (CN168 Pin20)
FRONT Y/V IN
AMP & VHS/S-VHS SP/LP FILTER SEL.
6.5MHz L.P.F
[AGC ADJ.]
IC107 (2/3)
CCD 1H DELAY
L.P.F BUFFER
BUFFER
4MHz LPF (DELAY) & BUFFER
6.58MHz L.P.F
IC102 S.VHS SUB EMPHASIS (NL PROCESS)
IC111 (1/2)
CLAMP
NL DEEMPHA
LP SYNC
YNR & DOC
DOC LOOP
DOC SW
[REC SUB EMPH. INPUT LEVEL]
IC107 (1/3)
4MHz L.P.F & 6dB AMP
6MHz L.P.F & BUFFER
6dB AMP
[Y-REMAINS LEVEL]
X3 fsc XO
CCD CLK (IC103,IC105,IC106)
IC106 CCD 1H DELAY
[1H DL LEVEL]
IC111 (2/2)
IC105 CCD 0.5H DELAY
[0.5H DL LEVEL]
IC104
SKEW COMPENSATION SWITCH (IC104,IC110)
IC164 (C INPUT SEL)
FRONT C IN
AUX C IN (CN168 Pin15)
ENV. DET.
ENV.DET. TO SYSCON
AMP PHASE CORRECT
[Y-REMAINS PHASE]
IC109 BURST SEQUECE COMPENSATOR(LP SEARCH)
SYNC SEP
PHASE COMP.
2fH VCO
1/2
D F.F
4.43MHz X2
CONTROL
7.8KHz TUNE AMP
7.8KHz PEAKING
8.86MHz PEAKING
BALANCED MODULATOR
4.43MHz B.P.F
IC143
IC110
0.5H JUMP
LP SEARCH
AMP & 0.5H DELAY
CHROMA OUT (EE,PB)
627KHz REC CHROMA
VHS PB & SEPARATE H
REC EE COMPOSITE ON PB S-VHS ON
1.4MHz L.P.F PB-C AMP
627KHz PB CHROMA INPUT
LOGICAL COMB FILTER BLOCK
IC165 (1/2)
IC107 (3/3)
4.43MHz B.P.F
PHASE CORRECTION
2H DL
IC108 CORRELATION
AMP PHASE CORRECT
[PHASE CORRELATION]
[LEVEL CORRELATION]
[COMB C PHASE]
[COMB C LEVEL]
3dB AMP
IC144 (1/2)
H.P.F & AMP
IC144 (2/2)
IC142 (1/2)
IC141 CHROMA PROCESS
ACC AMP
PILOT BURST INSERT
MAIN BALANCED MODULATOR
REC AMP
CHROMA PROCESSING BLOCK
·SUB BM ·321fH-VCO ·APC ·AFC ·ACC DET ·PILOT BURST GEN.
·AMP ·KILLER ·PILOT BURST-ERASE
MESECAM
PAL/SECAM
COMB AMP
4.43MHz VCXO
COMB FILTER
IC151 2nd ACC & BURST PHASE DETECTOR
R/P DET.
ACC
ACC DET.
BALANCE MODULATOR
VCO
BUFFER & REC/PB SW
4.43MHz PHASE SHIFT
BURST PHASE DET. AMP
PHASE ERROR
fsc OUT 4.43MHz
ROTARY IN
IC165 (2/2)
BURST AMP & DET
BURST SEP.
SEPARATE H
SEPARATE L
INPUT SEL V
IC142 (2/2)
PB CHROMA
BGP
627KHz REC CHROMA OUTPUT
BDV1-12591/OP4S-E

AUDIO CIRCUIT BASIC BLOCK DIAGRAM


CP-1 (AD-A) BOARD
IC201 UPC2354GF HIFI AUDIO,INPUT/OUTPUT SELECT
< INPUT SELECT >
IC210
INPUT SELECTOR
SWITCH CONTROL
LCH SW
RCH SW
AUDIO IN (L) (RCA-REAR)
TU AUDIO (L)
AV2 AD IN (L) (CN168 PIN6)
AUDIO IN (L)(RCA-FRONT)
AV1 AD IN (L) (CN167 PIN6)
AV2 AD IN (R) (CN168 PIN2)
AUDIO IN (R)(RCA-FRONT)
AV1 AD IN (R) (CN167 PIN2)
AUDIO IN (R) (RCA-REAR)
TU AUDIO (R)
AUX H
FRONT H
VR260(LEVEL) ON THE AD-2 VR262(BALANCE)
REC LEVEL CTL VR
REC BALANCE VR
INPUT SEL V
INPUT SEL A
AD SEL 0
AD SEL 1
LINE 1/LINE 2
LINE/SC/TUNER
REC(ST)/REC(BIL)/PB
VOL CTL
BAL VOL
L EVR
R EVR
(Lch)
(Rch)
MANUAL ON (ON)
ALC/MANUAL CONTROL
ALC DET
ALC ON (OFF)
NORMAL OUT
< PNR SECTION >
V-I CONV
PEAK DET
LPF
CCA
FM FILTER
NR FILTER
NR/FM FILTER ADJ
VR243 NR FILTER ADJ.
VR235 PB LEVEL Lch
VR236 PB LEVEL Rch
AUDIO LIMITER
HOLD
HOLD TIME
DOC PULSE
ENV. DET.
HOLD PULSE
CARRENT DET
AUTO/LINEAR
1.4MHZ/1.8MHZ BPF ADJ.
< MOD/DEM >
MOD
DE MOD
LIMITER
1.4MHZ BPF
1.8MHZ BPF
SW PULSE DELAY
AF SW PULSE
REC H
BPF ADJ.
VR239
f=1.4MHZ ADJ.
VR233
f=1.8MHZ ADJ.
VR234
Q2001,Q2101 Lch/Rch MIX
< OUTPUT SELECT >
HIFI /MIX/ NORMAL
NORMAL /MIX/ HIFI
MUTE
VR
H.P. CTL
RF ALC
NORMAL/MIX /HIFI
L/ST/R
HI-FI LED DRIVE
NORMAL AUDIO SIG.
NORMAL:0V HIFI:5V
ST:1.9V
A DUB H
B2396
Q2391
B2215
B2203
Q2251
Q2252
B2208
PB H
VDD
IC232
NORMAL AUDIO SELECTOR
A.DUB H
INPUT SEL A
B2391
CN206
NICAM DECODER
NORMAL AUDIO SELECT
NORMAL TU AUDIO
TN-5 BOARD
PRE-AMP UNIT.
IC291 UPC2350CS
AF REC/PB AMP
AF REC CTL
REC MUTE ON/OFF
AMP
PB ON
AF SW P
HEAD SW
SP 23#Ø LP 28#Ø
VCC
REC VCC
REC 12V
SWD 5V
CN202
CN291
TP291 CURRENT CHECK
CN186
AF HEAD
AF- CH1
AF- CH2
B2205
B2214
AV1 AD OUT(R)
AV1 AD OUT(L)
CN167
AV2 AD OUT(R)
AV2 AD OUT(L)
CN168
AD RF OUT
AUDIO OUT(L)(RCA-REAR)
CN210
AUDIO OUT(R)(RCA-REAR)
B2104
B2004
B2201 B2202
B2381
B2003
B2103
AD MUTE
IC203
CN203
HI-FI ENV. TO SYSCON
HI-FI L
AD-2 BOARD
CN261
TRACK.SIG
VR242 METER ADJ(R)
VR241 METER ADJ(L)
LEVEL METER
A2601
CN262
HEAD PHONE JACK
MIC JACK
CN262 HI-FI L TO TN-1
IC261
MIC AMP
MIC IN
MIC IN L
MIC BALANCE
VR265
V.REF
MIC BALANCE VOLUME
VR261
V.REF (SWD 5V)
H.P. VOLUME
IC233 MIC MIXING AMP
BUFFER
VCA1
VCA2
CONTROL
B2394
B2395
B2393
B2389
A DUB H
A DUB L
B2384
B2382
B2383
B2397
D2393 D2394
D2385,D2310
D2387
D2392 D2386
B2390
B2385
A DUB
PB H
BIAS CTL
INSERT
REC H
IC231 LA7294 NORMAL AUDIO
EE MUTE
AGC
ALC DET
PB MUTE
LINE AMP
POWER ON/OFF MUTE
ALC LEVEL
MUTING CONTROL
REC MUTE
LP CONTROL
PB/EE CONTROL
REC/EE CONTROL
R2310,R2311 C2314,C2315 ATTACK RECOVERY TIME CR
R2313 R2312
R2012 R2013
A REC MUTE
LP H
D2311 D2383
PB EQ
LP ON
EQUALIZE AMP
EE PB
POWER ON/OFF MUTE
REC AMP
PEAKING
L2302 C2319 R2317
PUSH CURRENT PROTEC
RIPPLE FILTER
SWD 12V
SW CONT.
A.DUB L
B2392
B2382
MECHANISM BLOCK
AUDIO R/P HEAD
AUDIO E HEAD
FULL E HEAD
CN201
VR201 BIAS
T2301 Q2301
T2381 Q2381
70K OSC
SW
BDA1-12571/0P4S-EXF
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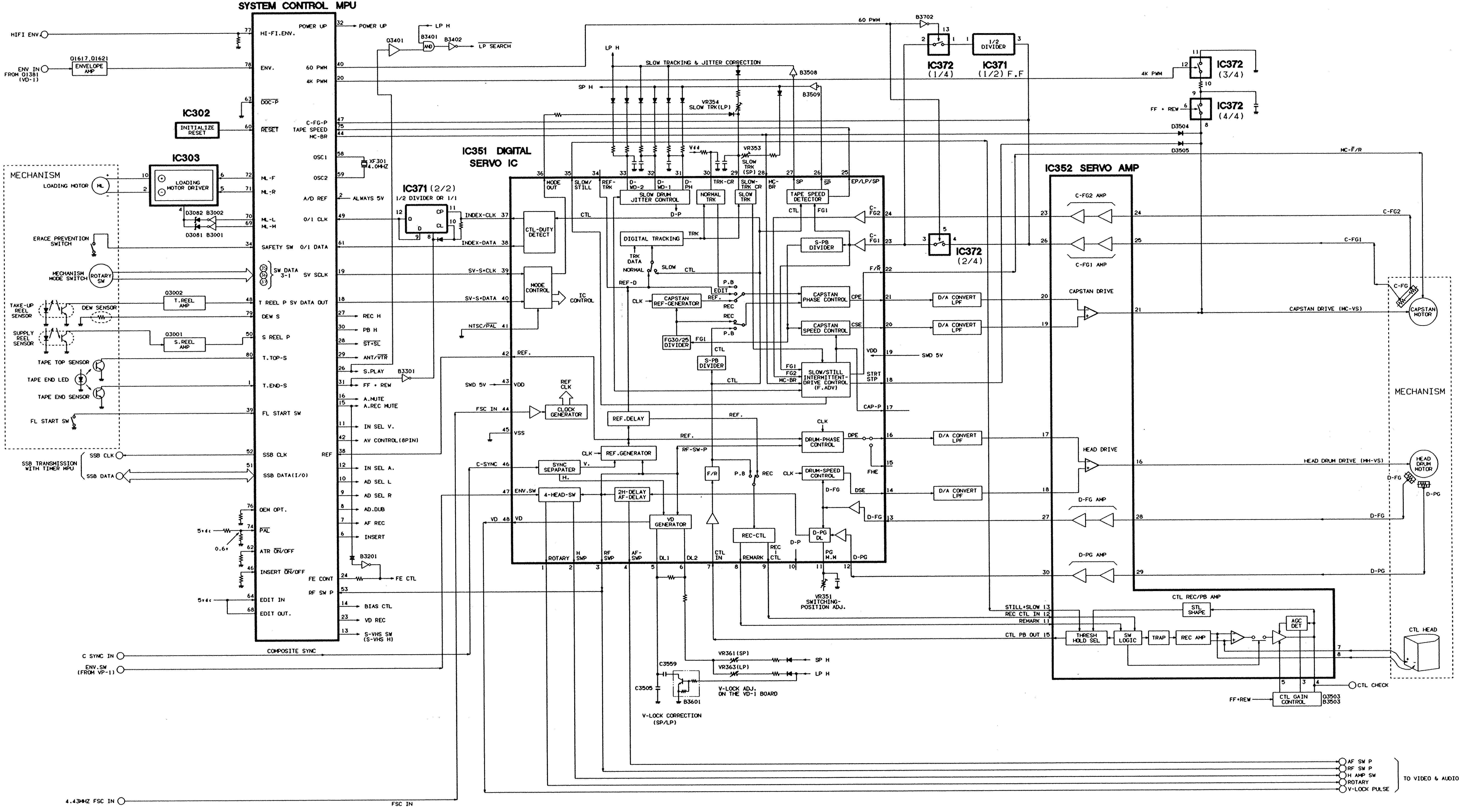
SYSTEM CONTROL & SERVO CIRCUIT BASIC BLOCK DIAGRAM


IC301
SYSTEM CONTROL MPU
IC302
INITIALIZE RESET
IC303
LOADING MOTOR DRIVER
MECHANISM
LOADING MOTOR
ML
ERACE PREVENTION SWITCH
MECHANISM MODE SWITCH
ROTARY SW
TAKE-UP REEL SENSOR
DEW SENSOR
SUPPLY REEL SENSOR
TAPE TOP SENSOR
TAPE END LED
TAPE END SENSOR
FL START SW
Q3002
T.REEL AMP
Q3001
S.REEL AMP
HIFI ENV.
ENV. IN FROM Q1381 (VD-1)
Q1617,Q1621
ENVELOPE AMP
SSB CLK
SSB DATA
SSB TRANSMISSION WITH TIMER MPU
D3082 B3002
D3081 B3001
HI-FI.ENV.
ENV.
DOC-P
RESET
ML-F
ML-R
ML-L
ML-M
SAFETY SW
SW DATA 3-1
T REEL P
DEW S
S REEL P
T.TOP-S
T.END-S
FL START SW
SSB CLK
SSB DATA(I/O)
OEM OPT.
PAL
ATR ON/OFF
INSERT ON/OFF
EDIT IN
EDIT OUT.
POWER UP
60 PWM
4K PWM
C-FG-P
TAPE SPEED
MC-BR
OSC1
OSC2
XF301 4.0MHZ
A/D REF
0/1 CLK
0/1 DATA
SV SCLK
SV DATA OUT
REF
FE CONT
RF SW P
POWER UP
ALWAYS 5V
REC H
PB H
ST+SL
ANT/VTR
S.PLAY
FF + REW
A.MUTE
A.REC MUTE
IN SEL V.
AV CONTROL(8PIN)
IN SEL A.
AD SEL L
AD SEL R
AD.DUB
AF REC
INSERT
FE CTL
BIAS CTL
VD REC
S-VHS SW (S-VHS H)
COMPOSITE SYNC
Q3401
B3401
B3402
LP H
LP SEARCH
B3301
B3201
5+4c
0.6v
C SYNC IN
ENV.SW (FROM VP-1)
4.43MHZ FSC IN
FSC IN
IC371 (2/2)
1/2 DIVIDER OR 1/1
CP
CL
INDEX-CLK
INDEX-DATA
SV-S+CLK
SV-S+DATA
NTSC/PAL
REF.
SWD 5V
FSC IN
C-SYNC
VD
IC351 DIGITAL SERVO IC
MODE OUT
SLOW/STILL
REF-TRK
D-WD-2
D-WD-1
D-PH
TRK-CR
SLOW-TRK CR
MC-BR
SP
EP/LP/SP
SLOW DRUM JITTER CONTROL
NORMAL TRK
SLOW TRK
TAPE SPEED DETECTOR
CTL-DUTY DETECT
MODE CONTROL
IC CONTROL
DIGITAL TRACKING
TRK
TRK DATA
NORMAL
SLOW
CTL
REF-D
EDIT
P.B
REC
CAPSTAN REF-GENERATOR
FG30/25 DIVIDER
S-PB DIVIDER
CAPSTAN PHASE CONTROL
CAPSTAN SPEED CONTROL
CPE
CSE
VDD
SLOW/STILL INTERMITTENT-DRIVE CONTROL (F.ADV)
STRT STP
CAP-P
C-FG2
C-FG1
F/R
REF CLK
CLOCK GENERATOR
VDD
VSS
REF.DELAY
REF.GENERATOR
SYNC SEPARATER
H.
V.
4-HEAD-SW
2H-DELAY AF-DELAY
VD GENERATOR
F/R
RF-SW-P
DRUM-PHASE CONTROL
DPE
DRUM-SPEED CONTROL
DSE
FHE
D-FG
D-PG DL
REC-CTL
ROTARY
H SWP
RF SWP
AF-SWP
DL1
DL2
CTL IN
REMARK
REC CTL
PG H.M
D-PG
VR351 SWITCHING-POSITION ADJ.
SLOW TRACKING & JITTER CORRECTION
VR354 SLOW TRK(LP)
VR353 SLOW TRK (SP)
V44
B3508
B3509
SP H
LP H
VR361(SP)
VR363(LP)
C3559
C3505
B3601
V-LOCK ADJ. ON THE VD-1 BOARD
V-LOCK CORRECTION (SP/LP)
60 PWM
B3702
IC372 (1/4)
IC371 (1/2) F.F
1/2 DIVIDER
4K PWM
IC372 (3/4)
FF + REW
IC372 (4/4)
D3504
D3505
MC-F/R
IC372 (2/4)
D/A CONVERT LPF
SWD 5V
IC352 SERVO AMP
C-FG2 AMP
C-FG1 AMP
CAPSTAN DRIVE
HEAD DRIVE
D-FG AMP
D-PG AMP
C-FG2
C-FG1
CAPSTAN DRIVE (MC-VS)
HEAD DRUM DRIVE (MH-VS)
D-FG
D-PG
MECHANISM
C-FG
CAPSTAN MOTOR
HEAD DRUM MOTOR
CTL HEAD
CTL REC/PB AMP
STL SHAPE
STILL+SLOW
REC CTL IN
REMARK
CTL PB OUT
THRESH HOLD SEL
SW LOGIC
TRAP
REC AMP
AGC DET
CTL CHECK
FF+REW
CTL GAIN CONTROL
Q3503 B3503
AF SW P
RF SW P
H AMP SW
ROTARY
V-LOCK PULSE
TO VIDEO & AUDIO
BDS1-12591/OP4SV-G
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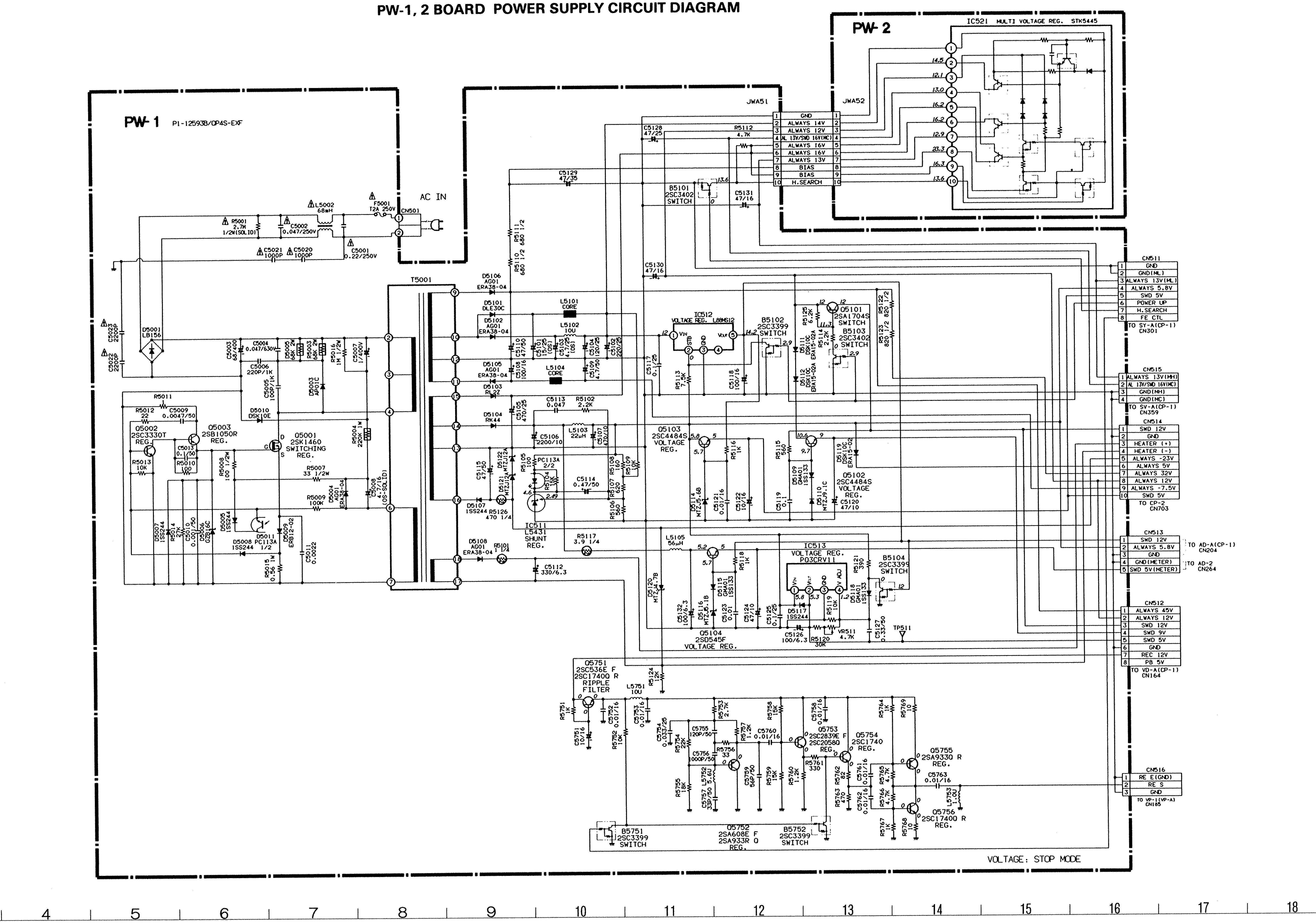
PW-1, 2 BOARD POWER SUPPLY CIRCUIT DIAGRAM


PW-1 P1-12593B/OP4S-EXF
PW-2
IC521 MULTI VOLTAGE REG. STK5445
JWA51
JWA52
1 GND
2 ALWAYS 14V
3 ALWAYS 12V
4 AL 13V/SWD 16V(MC)
5 ALWAYS 16V
6 ALWAYS 16V
7 ALWAYS 13V
8 BIAS
9 BIAS
10 H.SEARCH
AC IN
CN501
F5001 T2A 250V
L5002 68mH
R5001 2.7M 1/2W(SOLID)
C5002 0.047/250V
C5001 0.22/250V
C5021 1000P
C5020 1000P
C5023 2200P
C5022 2200P
D5001 LB156
T5001
Q5001 2SK1460 SWITCHING REG.
Q5002 2SC3330T REG.
Q5003 2SB1050R REG.
D5011 PC113A 1/2
IC511 L5431 SHUNT REG.
PC113A 2/2
IC512 VOLTAGE REG. L88MS12
IC513 VOLTAGE REG. PQ3CRV11
B5101 2SC3402 SWITCH
B5102 2SC3399 SWITCH
B5103 2SC3402 SWITCH
B5104 2SC3399 SWITCH
Q5101 2SA1704S SWITCH
Q5102 2SC4484S VOLTAGE REG.
Q5103 2SC4484S VOLTAGE REG.
Q5104 2SD545F VOLTAGE REG.
Q5751 2SC536E F 2SC1740Q R RIPPLE FILTER
Q5752 2SA608E F 2SA933R Q REG.
Q5753 2SC2839E F 2SC2058Q REG.
Q5754 2SC1740 REG.
Q5755 2SA933Q R REG.
Q5756 2SC1740Q R REG.
B5751 2SC3399 SWITCH
B5752 2SC3399 SWITCH
TP511
CN511
1 GND
2 GND(ML)
3 ALWAYS 13V(ML)
4 ALWAYS 5.8V
5 SWD 5V
6 POWER UP
7 H.SEARCH
8 FE CTL
TO SY-A(CP-1) CN301
CN515
1 ALWAYS 13V(MH)
2 AL 13V/SWD 16V(MC)
3 GND(MH)
4 GND(MC)
TO SV-A(CP-1) CN359
CN514
1 SWD 12V
2 GND
3 HEATER (+)
4 HEATER (-)
5 ALWAYS -23V
6 ALWAYS 5V
7 ALWAYS 32V
8 ALWAYS 12V
9 ALWAYS -7.5V
10 SWD 5V
TO CP-2 CN703
CN513
1 SWD 12V
2 ALWAYS 5.8V
3 GND
4 GND(METER)
5 SWD 5V(METER)
TO AD-A(CP-1) CN204
TO AD-2 CN264
CN512
1 ALWAYS 45V
2 ALWAYS 12V
3 SWD 12V
4 SWD 9V
5 SWD 5V
6 GND
7 REC 12V
8 PB 5V
TO VD-A(CP-1) CN164
CN516
1 RE E(GND)
2 RE S
3 GND
TO VP-1(VP-A) CN185
VOLTAGE: STOP MODE
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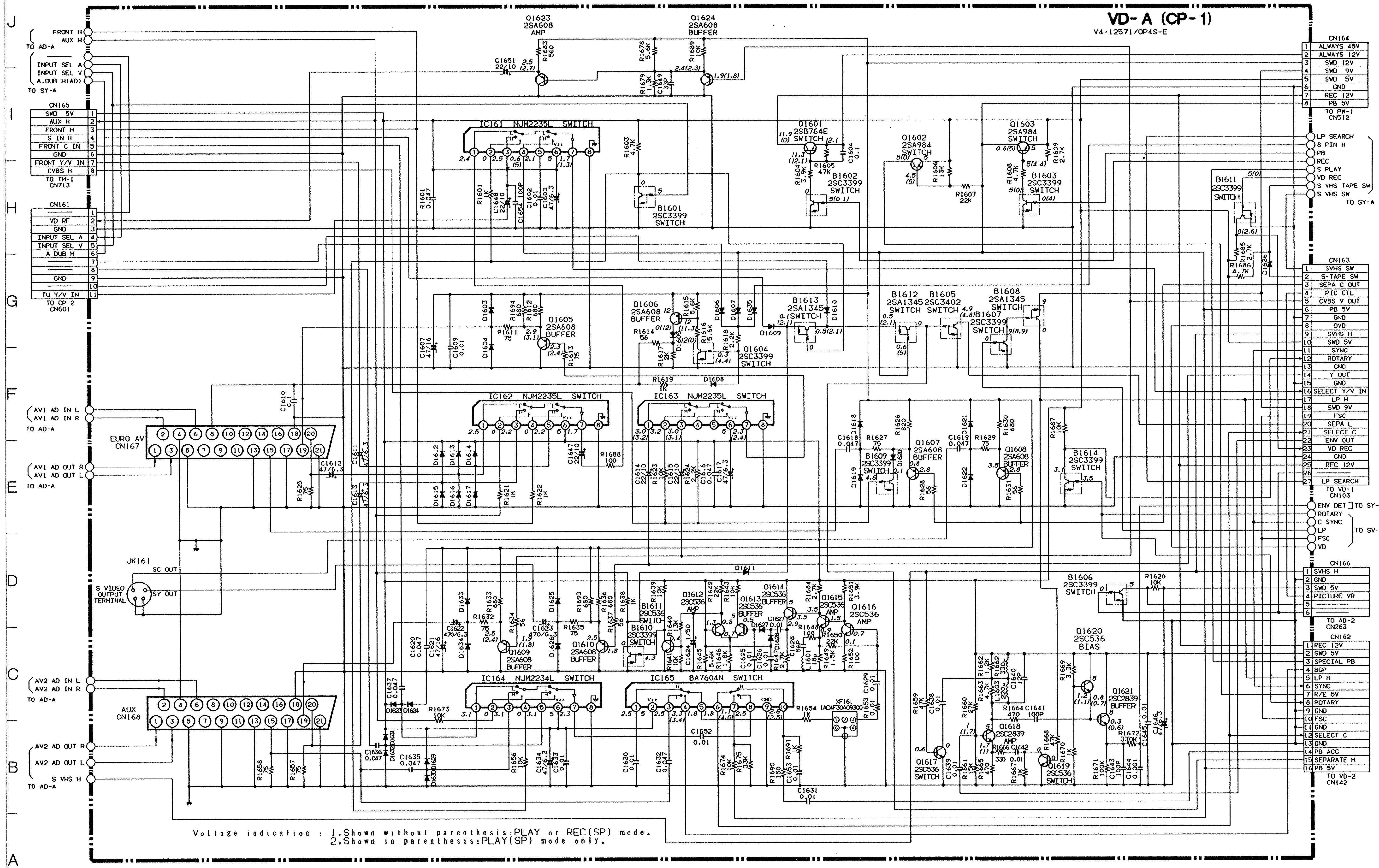
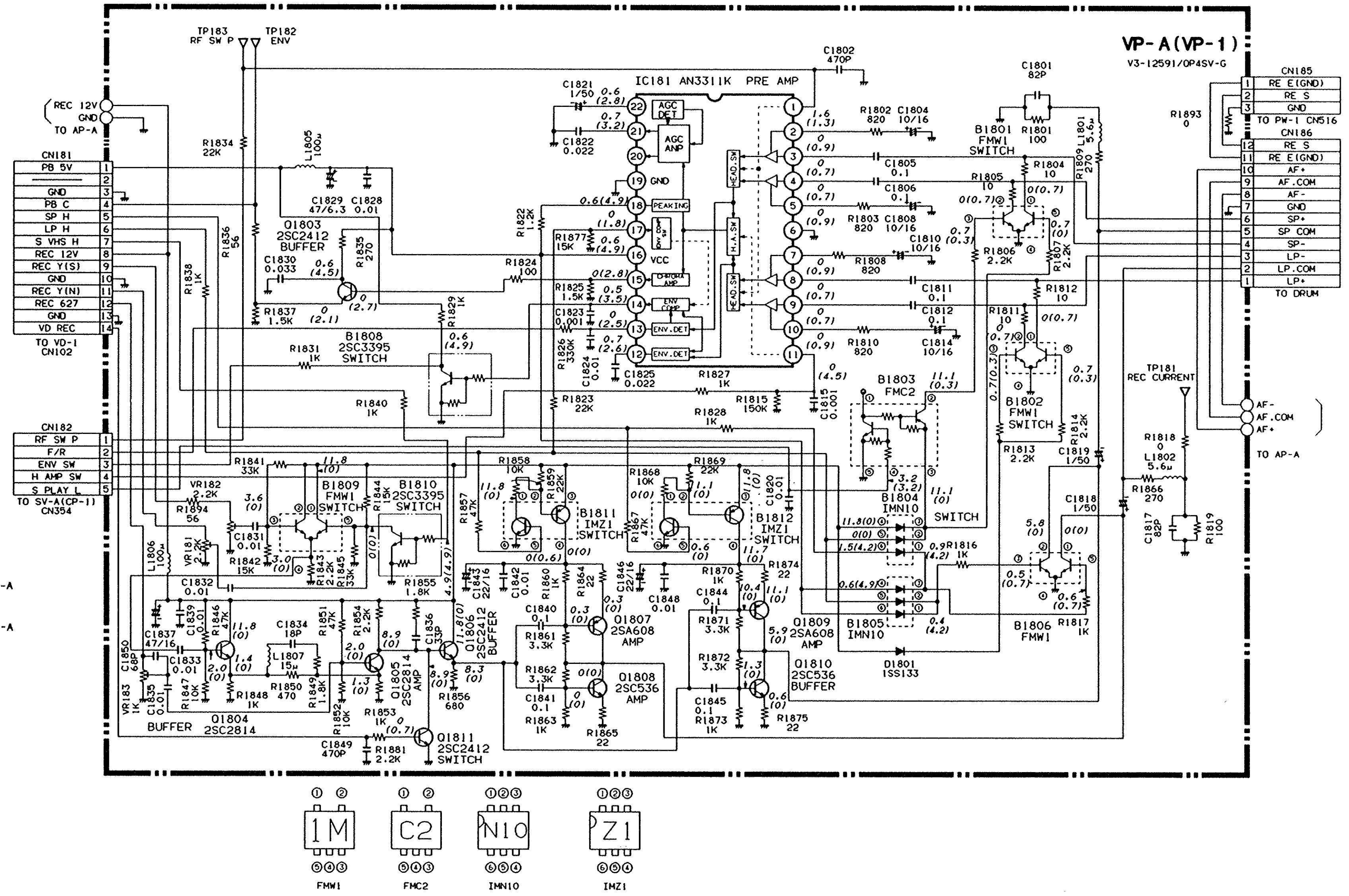
CP-1 BOARD (VD-A) VIDEO INPUT/OUTPUT SELECTOR CIRCUIT DIAGRAM


VD- A (CP- 1)
V4-12571/OP4S-E
FRONT H
AUX H
TO AD-A
INPUT SEL A
INPUT SEL V
A.DUB H(AD)
TO SY-A
CN165
SWD 5V
AUX H
FRONT H
S IN H
FRONT C IN
GND
FRONT Y/V IN
CVBS H
TO TH-1 CN713
CN161
VD RF
GND
INPUT SEL A
INPUT SEL V
A.DUB H
GND
TU Y/V IN
TO CP-2 CN601
Q1623 2SA608 AMP
Q1624 2SA608 BUFFER
IC161 NJM2235L SWITCH
Q1601 2SB764E SWITCH
B1601 2SC3399 SWITCH
B1602 2SC3399 SWITCH
Q1602 2SA984 SWITCH
Q1603 2SA984 SWITCH
B1603 2SC3399 SWITCH
B1611 2SC3399 SWITCH
CN164
ALWAYS 45V
ALWAYS 12V
SWD 12V
SWD 9V
SWD 5V
GND
REC 12V
PB 5V
TO PW-1 CN512
LP SEARCH
8 PIN H
PB
REC
S PLAY
VD REC
S VHS TAPE SW
S VHS SW
TO SY-A
Q1605 2SA608 BUFFER
Q1606 2SA608 BUFFER
Q1604 2SC3399 SWITCH
B1613 2SA1345 SWITCH
B1612 2SA1345 SWITCH
B1605 2SC3402 SWITCH
B1608 2SA1345 SWITCH
B1607 2SC3399 SWITCH
CN163
SVHS SW
S-TAPE SW
SEPA C OUT
PIC CTL
CVBS V OUT
PB 5V
GND
GVD
SVHS H
SWD 5V
SYNC
ROTARY
GND
Y OUT
GND
SELECT Y/V IN
LP H
SWD 9V
FSC
SEPA L
SELECT C
ENV OUT
VD REC
GND
REC 12V
LP SEARCH
TO VD-1 CN103
ENV DET
ROTARY
C-SYNC
LP
FSC
VD
TO SY-A
TO SV-A
AV1 AD IN L
AV1 AD IN R
TO AD-A
EURO AV CN167
AV1 AD OUT R
AV1 AD OUT L
TO AD-A
IC162 NJM2235L SWITCH
IC163 NJM2235L SWITCH
Q1607 2SA608 BUFFER
Q1608 2SA608 BUFFER
B1609 2SC3399 SWITCH
B1614 2SC3399 SWITCH
JK161
S VIDEO OUTPUT TERMINAL
SC OUT
SY OUT
B1606 2SC3399 SWITCH
CN166
SVHS H
GND
SWD 5V
PICTURE VR
TO AD-2 CN263
Q1609 2SA608 BUFFER
Q1610 2SA608 BUFFER
B1610 2SC3399 SWITCH
B1611 2SC3399 SWITCH
Q1612 2SC536 AMP
Q1613 2SC536 BUFFER
Q1614 2SC536 BUFFER
Q1615 2SC536 AMP
Q1616 2SC536 AMP
Q1620 2SC536 BIAS
Q1621 2SC2839 BUFFER
Q1618 2SC2839 AMP
Q1617 2SC536 SWITCH
B1615 2SC3399 SWITCH
AV2 AD IN L
AV2 AD IN R
TO AD-A
AUX CN168
IC164 NJM2234L SWITCH
IC165 BA7604N SWITCH
XF161 1ACF30409300
AV2 AD OUT R
AV2 AD OUT L
S VHS H
TO AD-A
CN162
REC 12V
SWD 5V
SPECIAL PB
BGP
LP H
SYNC
R/E 5V
ROTARY
GND
FSC
GND
SELECT C
GND
PB ACC
SEPARATE H
PB 5V
TO VD-2 CN142

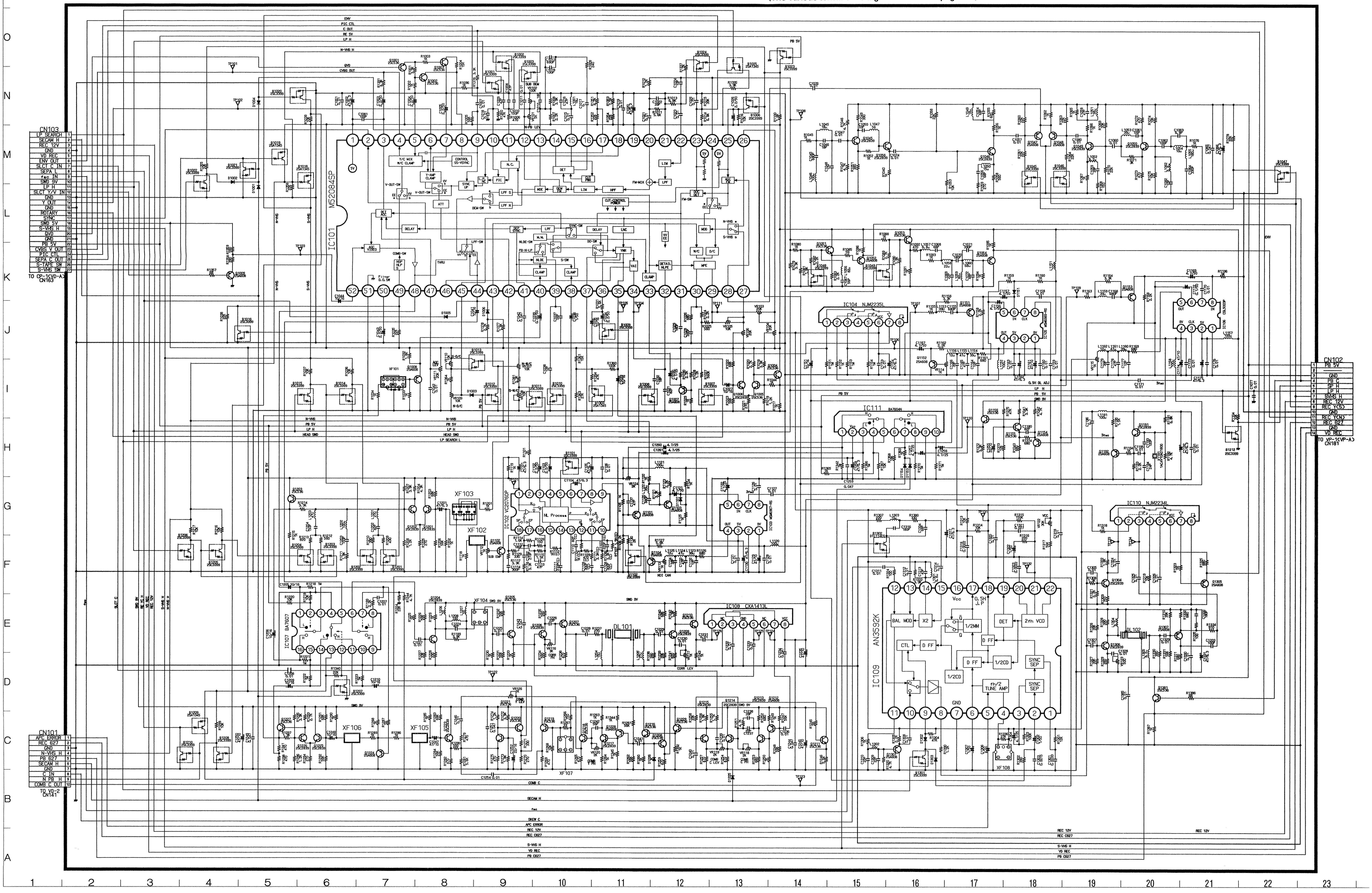
Voltage indication : 1.Shown without parenthesis:PLAY or REC(SP) mode.
2.Shown in parenthesis:PLAY(SP) mode only.

VP-1 BOARD (VP-A) VIDEO PRE-AMP CIRCUIT DIAGRAM


VP-A(VP-1)
V3-12591/OP4SV-G
TP183 RF SW P
TP182 ENV
REC 12V
GND
TO AP-A
CN181
PB 5V
GND
PB C
SP H
LP H
S VHS H
REC 12V
REC Y(S)
GND
REC Y(N)
REC 627
GND
VD REC
TO VD-1 CN102
CN182
RF SW P
F/R
ENV SW
H AMP SW
S PLAY L
TO SV-A(CP-1) CN354
IC181 AN3311K PRE AMP
AGC DET
AGC AMP
PEAKING
VCC
ENV DET
Q1803 2SC2412 BUFFER
B1808 2SC3395 SWITCH
B1809 FMW1 SWITCH
B1810 2SC3395 SWITCH
B1811 IMZ1 SWITCH
B1812 IMZ1 SWITCH
B1801 FMW1 SWITCH
B1802 FMW1 SWITCH
B1803 FMC2
B1804 IMN10
B1805 IMN10
B1806 FMW1
TP181 REC CURRENT
Q1804 2SC2814 BUFFER
Q1805 2SC2814 AMP
Q1806 2SC2412 BUFFER
Q1807 2SA608 AMP
Q1808 2SC536 AMP
Q1809 2SA608 AMP
Q1810 2SC536 BUFFER
Q1811 2SC2412 SWITCH
D1801 1SS133
SWITCH
CN185
RE E(GND)
RE S
GND
TO PW-1 CN516
CN186
RE S
RE E(GND)
AF+
AF.COM
AF-
GND
SP+
SP.COM
SP-
LP-
LP.COM
LP+
TO DRUM
AF-
AF.COM
AF+
TO AP-A
1M
C2
N1O
Z1
FMW1
FMC2
IMN10
IMZ1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

VD-1 BOARD VIDEO CIRCUIT DIAGRAM (The various terminal voltage are shown in page 66.)


CN103
1 LP SEARCH
2 SECAM H
3 REC 12V
4 GND
5 VD REC
6 ENV OUT
7 SLCT C IN
8 SEPA L
9 fsc IN
10 SWD 9V
11 LP H
12 SLCT Y/V IN
13 GND
14 Y OUT
15 GND
16 ROTARY
17 SYNC
18 SWD 5V
19 S-VHS H
20 QVD
21 GND
22 PB 5V
23 CVBS V OUT
24 PIC CTL
25 SEPA C OUT
26 S-TAPE SW
27 S-VHS SW
TO CP-1(VD-A) CN163
CN101
1 APC ERROR
2 REC 627
3 GND
4 N-VHS H
5 PB 627
6 SECAM H
7 GND
8 C IN
9 N PB H
10 COMB C OUT
TO VD-2 CN141
CN102
1 PB 5V
2
3 GND
4 PB C
5 SP H
6 LP H
7 SVHS H
8 REC 12V
9 REC Y(S)
10 GND
11 REC Y(N)
12 REC 627
13 GND
14 VD REC
TO VP-1(VP-A) CN181
IC101 M52084SP
IC102 LC20760P
IC104 NJM2235L
IC107 BA7607
IC108 CXA1413L
IC109 AN3592K
IC110 NJM2234L
IC111 BA7604N
XF101
XF102
XF103
XF104
XF105
XF106
XF107
XF108
DL101
DL102
P
O
N
M
L
K
J
I
H
G
F
E
D
C
B
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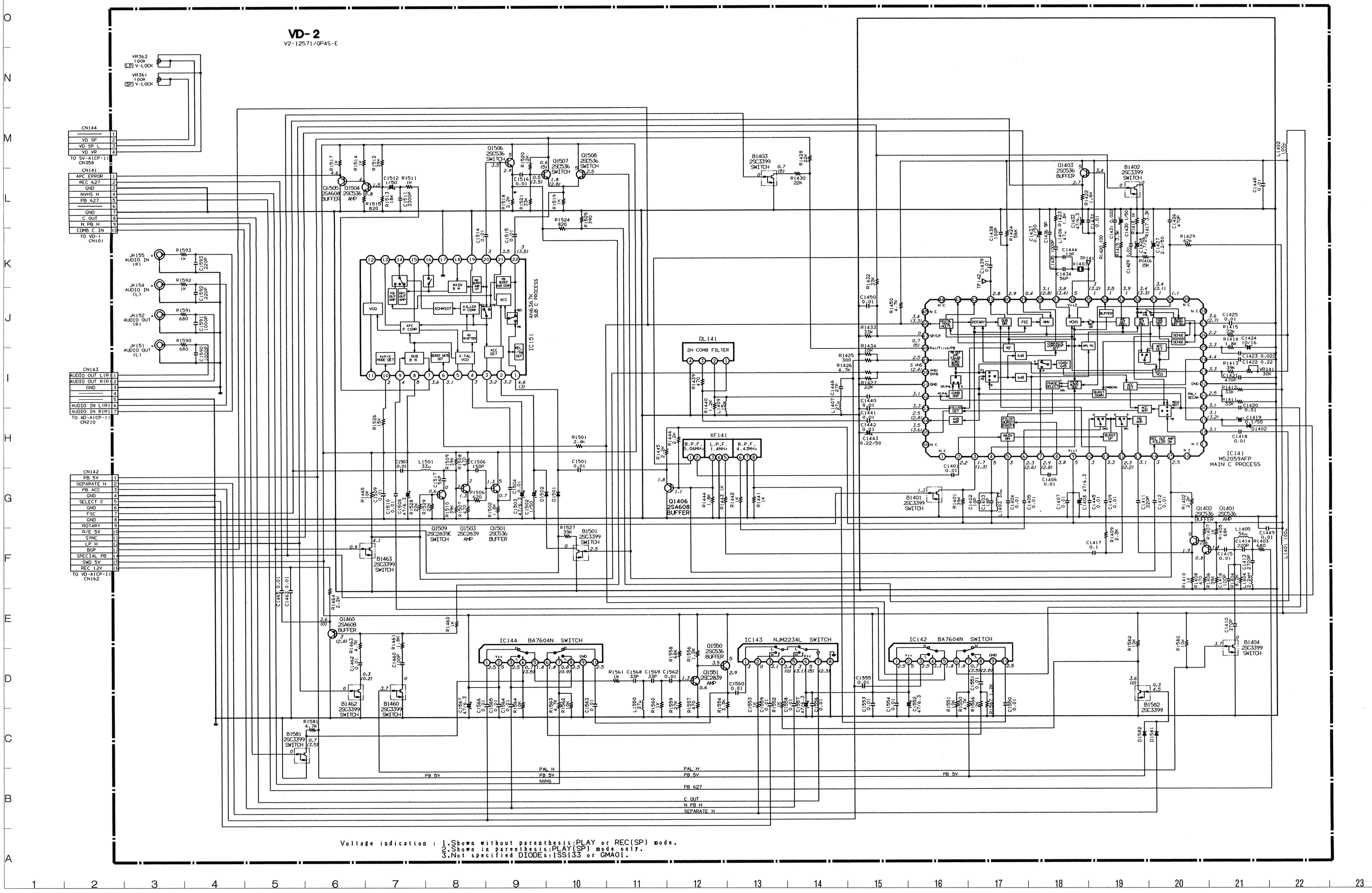
VD-2 BOARD CHROMA PROCESS CIRCUIT DIAGRAM


VD-2
V2-12571/0P4S-E
VR363 100K LP V-LOCK
VR361 100K SP V-LOCK
CN144
VD SP
VD SP L
VD VR
TO SV-A1CP-11 CN358
CN141
APC ERROR
REC 627
GND
NVHS H
PB 627
GND
C OUT
N PB H
COMB C IN
TO VD-1 CN101
JK155 AUDIO IN (R)
JK154 AUDIO IN (L)
JK152 AUDIO OUT (R)
JK151 AUDIO OUT (L)
CN143
AUDIO OUT L(R)
AUDIO OUT R(R)
GND
AUDIO IN L(R)
AUDIO IN R(R)
TO AD-A1CP-11 CN210
CN142
PB 5V
SEPARATE H
PB ACC
GND
SELECT C
GND
FSC
GND
ROTARY
R/E 5V
SYNC
LP H
BGP
SPECIAL PB
SWD 5V
REC 12V
TO VD-A1CP-11 CN162
Q1505 2SA608 BUFFER
Q1504 2SC536 AMP
Q1506 2SC536 SWITCH
Q1507 2SC536 SWITCH
Q1508 2SC536 SWITCH
IC151 AN6357K SUB C PROCESS
VCO
APC P COMP
SCHMIDT
KILLER P COMP
ACC
MAIN B H
90 SHIFTER
N/P/S MODE DET
SUB B H
BURST GATE DET
X-TAL VCO
ACC DET
REC DET
Q1509 2SC2839E SWITCH
Q1503 2SC2839 AMP
Q1501 2SC536 BUFFER
B1463 2SC3399 SWITCH
B1501 2SC3399 SWITCH
B1403 2SC3399 SWITCH
DL141 2H COMB FILTER
XF141
B.P.F. 5.06MHz
L.P.F. 1.4MHz
B.P.F. 4.43MHz
Q1406 2SA608 BUFFER
B1401 2SC3399 SWITCH
Q1403 2SC536 BUFFER
B1402 2SC3399 SWITCH
IC141 M52059AFP MAIN C PROCESS
Q1402 2SC536 BUFFER
Q1401 2SC536 AMP
Q1460 2SA608 BUFFER
B1462 2SC3399 SWITCH
B1460 2SC3399 SWITCH
B1581 2SC3399 SWITCH
IC144 BA7604N SWITCH
IC143 NJM2234L SWITCH
IC142 BA7604N SWITCH
Q1550 2SC536 BUFFER
Q1551 2SC2839 AMP
B1582 2SC3399
B1404 2SC3399 SWITCH
D1582
D1581
PB 5V
PAL H
NVHS
PB 627
C OUT
N PB H
SEPARATE H
P
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A
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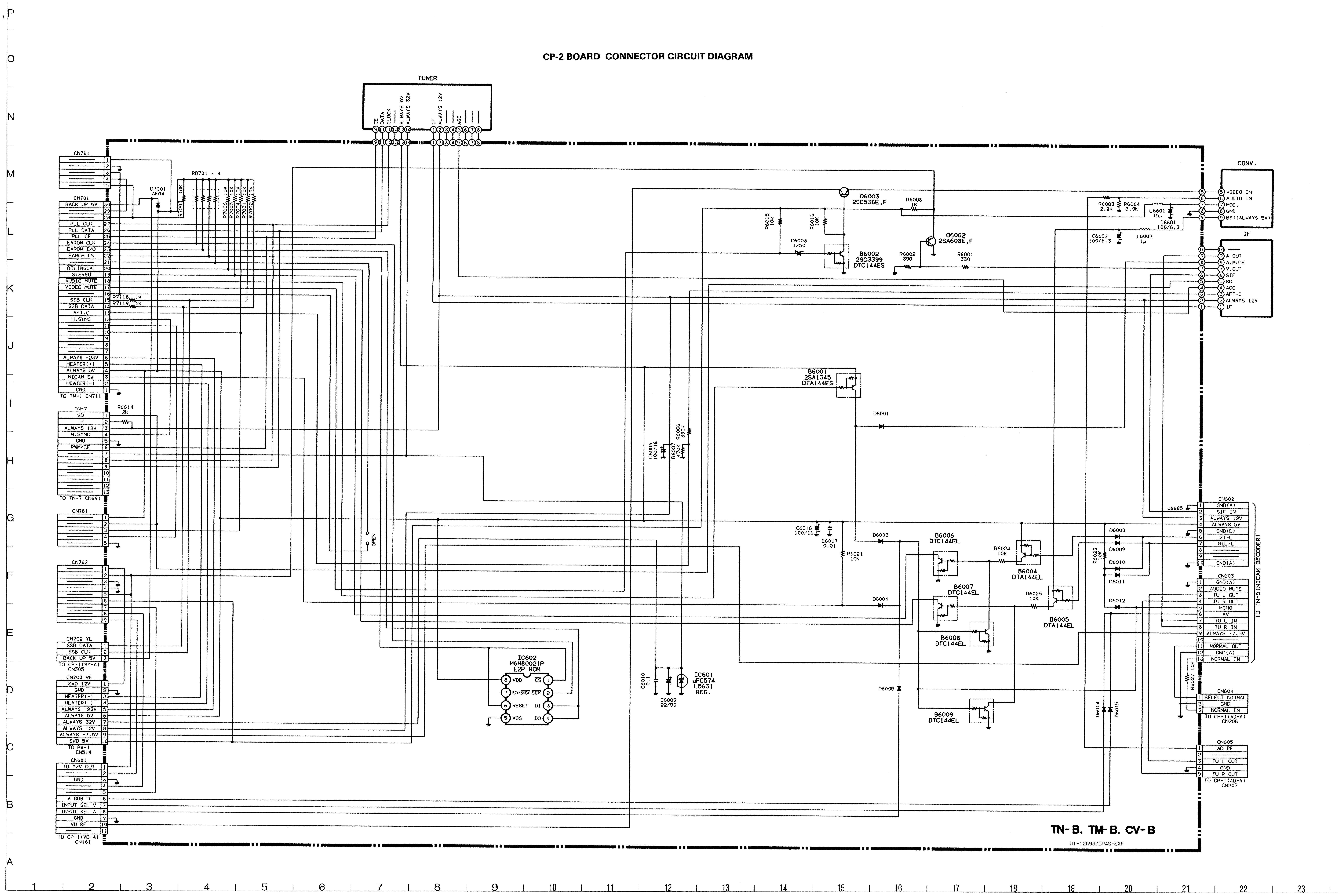
Voltage indication : 1.Shown without parenthesis:PLAY or REC(SP) mode.
2.Shown in parenthesis:PLAY(SP) mode only.
3.Not specified DIODEs:1SS133 or GMA01.

CP-2 BOARD CONNECTOR CIRCUIT DIAGRAM


TUNER
CE
DATA
CLOCK
ALWAYS 5V
ALWAYS 32V
IF
ALWAYS 12V
AGC
CN761
CN701
BACK UP 5V
PLL CLK
PLL DATA
PLL CE
EAROM CLK
EAROM I/O
EAROM CS
BILINGUAL
STEREO
AUDIO MUTE
VIDEO MUTE
SSB CLK
SSB DATA
AFT.C
H.SYNC
ALWAYS -23V
HEATER(+)
ALWAYS 5V
NICAM SW
HEATER(-)
GND
TO TM-1 CN711
D7001
AK04
RB701 × 4
R7003 10K
R7006 10K
R7005 10K
R7004 10K
R7001 10K
R7002 10K
R7118 1K
R7119 1K
TN-7
SD
TP
ALWAYS 12V
H.SYNC
GND
PWM/CE
TO TN-7 CN691
R6014
2K
CN781
OPEN
CN762
CN702 YL
SSB DATA
SSB CLK
BACK UP 5V
TO CP-1(SY-A)
CN305
CN703 RE
SWD 12V
GND
HEATER(+)
HEATER(-)
ALWAYS -23V
ALWAYS 5V
ALWAYS 32V
ALWAYS 12V
ALWAYS -7.5V
SWD 5V
TO PW-1
CN514
CN601
TU Y/V OUT
GND
A DUB H
INPUT SEL V
INPUT SEL A
GND
VD RF
TO CP-1(VD-A)
CN161
IC602
M6M80021P
E2P ROM
VDD
CS
RDY/BUSY
SCK
RESET
DI
VSS
DO
Q6003
2SC536E,F
R6008
1K
R6015
10K
R6016
10K
C6008
1/50
B6002
2SC3399
DTC144ES
Q6002
2SA608E,F
R6002
390
R6001
330
B6001
2SA1345
DTA144ES
D6001
C6006
100/16
R6007
470K
R6006
390K
C6016
100/16
C6017
0.01
R6021
10K
D6003
D6004
D6005
C6010
0.1
C6009
22/50
IC601
μPC574
L5631
REG.
B6006
DTC144EL
B6007
DTC144EL
B6008
DTC144EL
B6009
DTC144EL
R6024
10K
B6004
DTA144EL
R6025
10K
B6005
DTA144EL
R6023
10K
D6008
D6009
D6010
D6011
D6012
D6014
D6015
R6027 10K
J6685
CONV.
VIDEO IN
AUDIO IN
MOD.
GND
BST(ALWAYS 5V)
R6003
2.2K
R6004
3.9K
L6601
15μ
C6601
100/6.3
C6602
100/6.3
L6002
1μ
IF
A OUT
A.MUTE
V.OUT
SIF
SD
AGC
AFT-C
ALWAYS 12V
IF
CN602
GND(A)
SIF IN
ALWAYS 12V
ALWAYS 5V
GND(D)
ST-L
BIL-L
GND(A)
CN603
GND(A)
AUDIO MUTE
TU L OUT
TU R OUT
MONO
AV
TU L IN
TU R IN
ALWAYS -7.5V
NORMAL OUT
GND(A)
NORMAL IN
TO TN-5(NICAM DECODER)
CN604
SELECT NORMAL
GND
NORMAL IN
TO CP-1(AD-A)
CN206
CN605
AD RF
TU L OUT
GND
TU R OUT
TO CP-1(AD-A)
CN207
TN-B. TM-B. CV-B
U1-12593/0P4S-EXF
P
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
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14
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16
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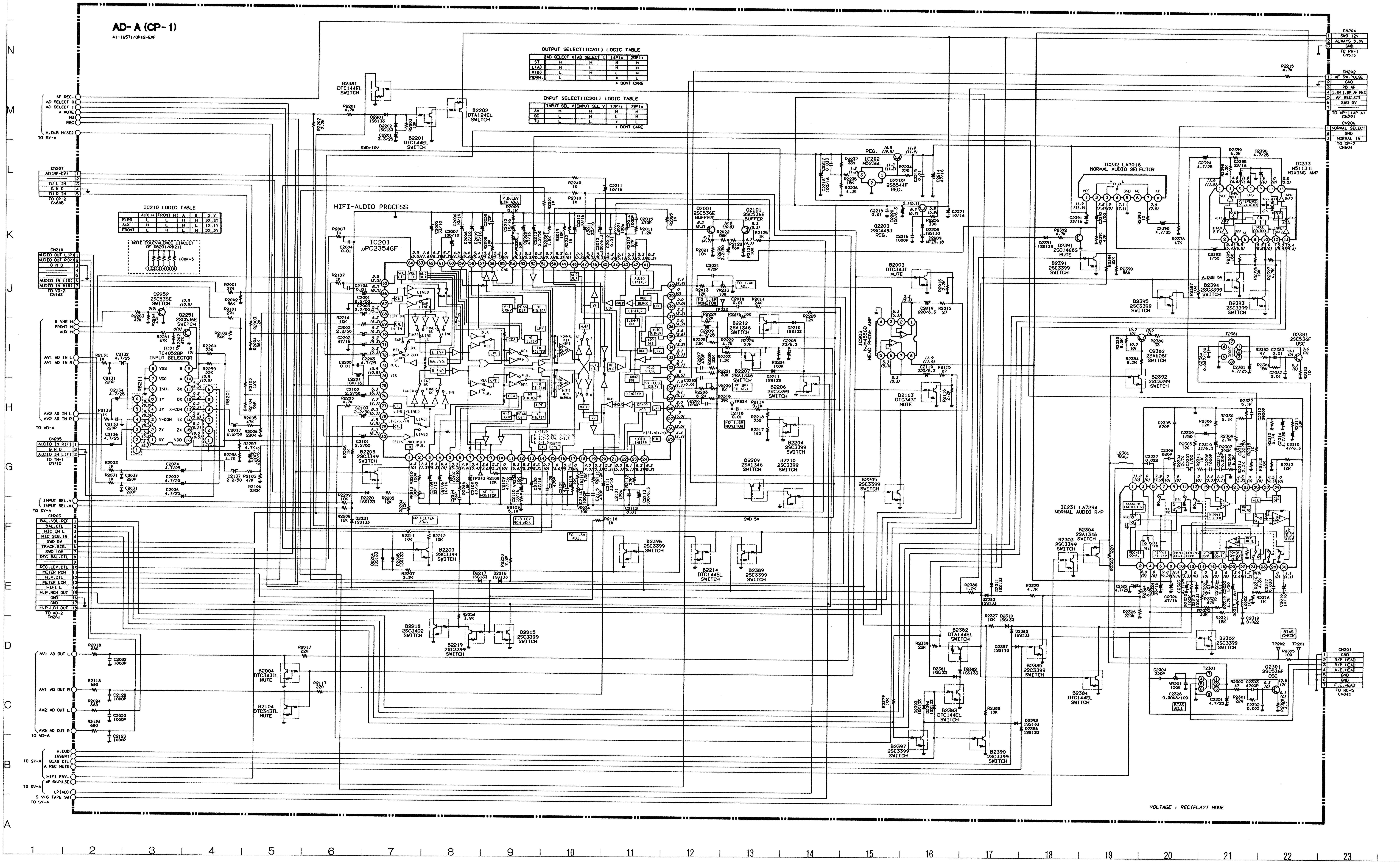
19
20
21
22
23

CP-1 BOARD (AD-A) AUDIO CIRCUIT DIAGRAM


AD-A (CP-1)
A1-12571/0P4S-EXF
HIFI-AUDIO PROCESS
IC201 μPC2354GF
IC210 TC4052BP INPUT SELECTOR
IC202 M5236L
IC203 NJM4559D HEAD PHONE AMP
IC232 LA7016 NORMAL AUDIO SELECTOR
IC233 M51131L MIXING AMP
IC231 LA7294 NORMAL AUDIO R/P
CN204
CN202
CN206
CN207
CN210
CN205
CN203
CN201
TO PW-1 CN513
TO VP-1(AP-A) CN291
TO CP-2 CN604
TO CP-2 CN605
TO VD-2 CN143
TO TM-1 CN715
TO AD-2 CN261
TO MC-5 CN841
TO SY-A
TO VD-A
BIAS ADJ.
BIAS CHECK
VOLTAGE : REC(PLAY) MODE
P
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

OUTPUT SELECT(IC201) LOGIC TABLE

	AD SELECT 0	AD SELECT 1	14Pin	25Pin
ST	H	H	H	H
L(A)	H	L	H	H
R(B)	L	H	L	H
NORM.	L	L	*	L

* DONT CARE

INPUT SELECT(IC201) LOGIC TABLE

	INPUT SEL V	INPUT SEL V	77Pin	79Pin
AV	H	H	H	H
SC	L	H	L	H
TU	L	L	*	L

* DONT CARE

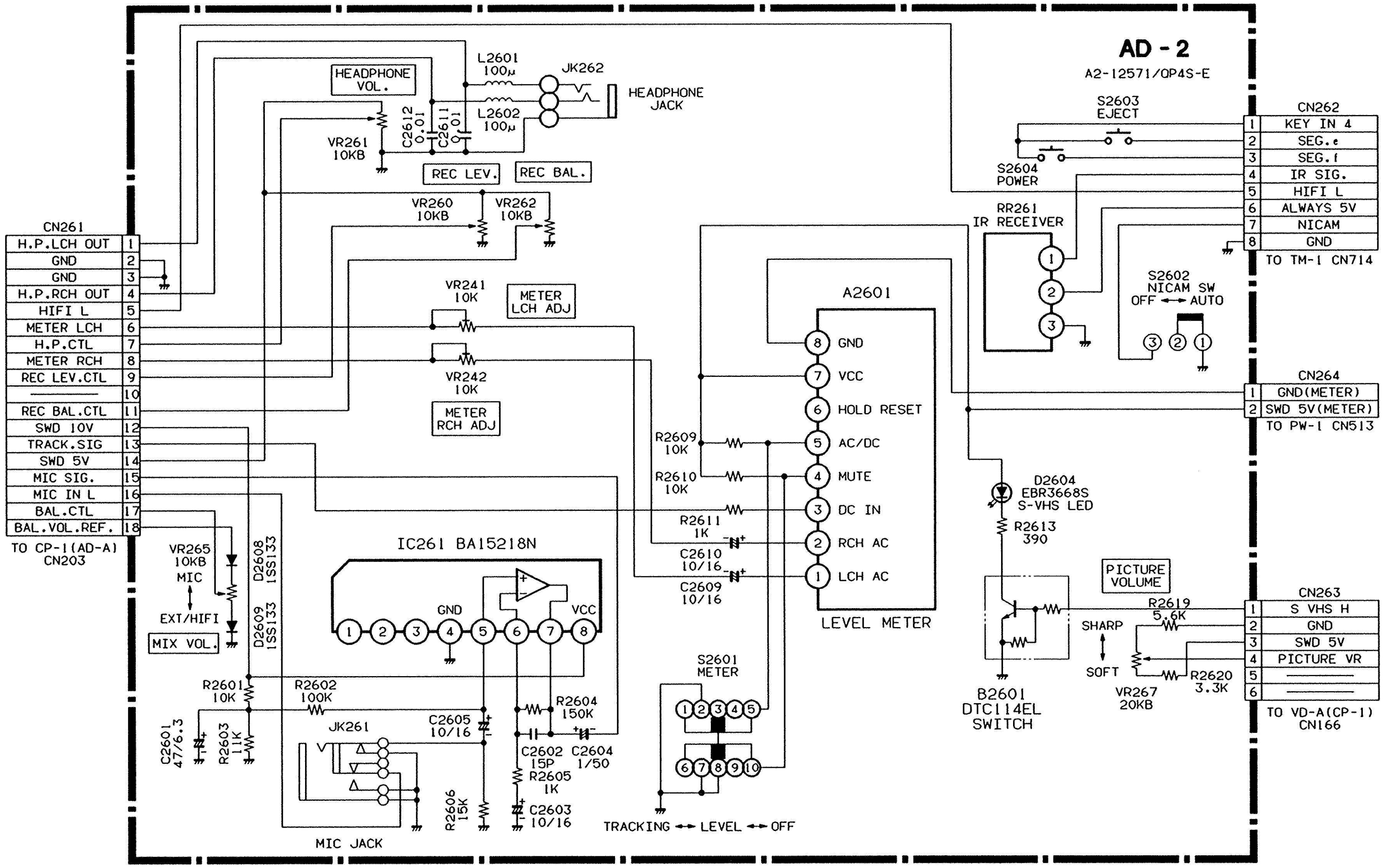
IC210 LOGIC TABLE

	AUX H	FRONT H	A	B	X,Y
EURO	L	L	H	H	3X,3Y
AUX	H	L	H	L	1X,1Y
FRONT	L	H	L	H	2X,2Y

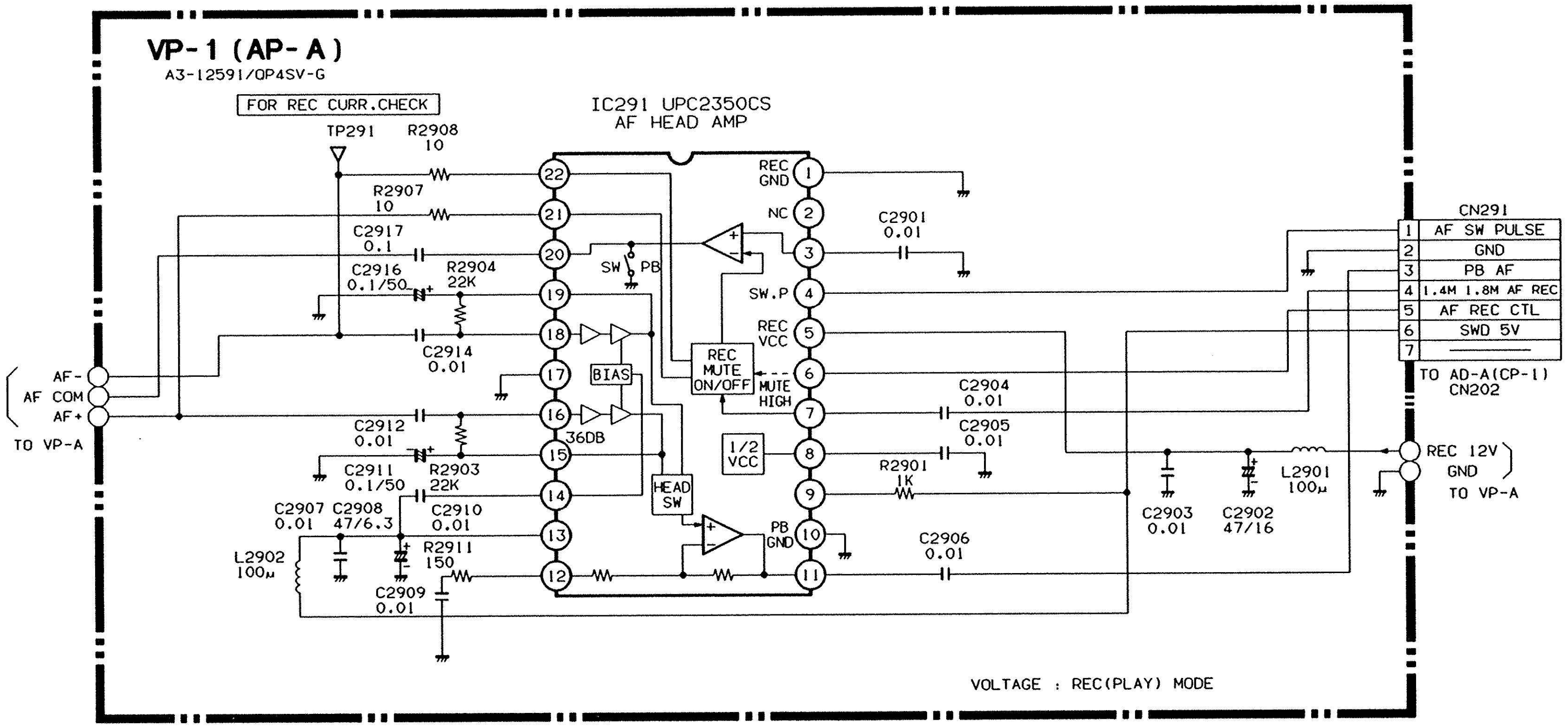
NOTE EQUIVALENCE CIRCUIT OF RB201/RB211

100K×5

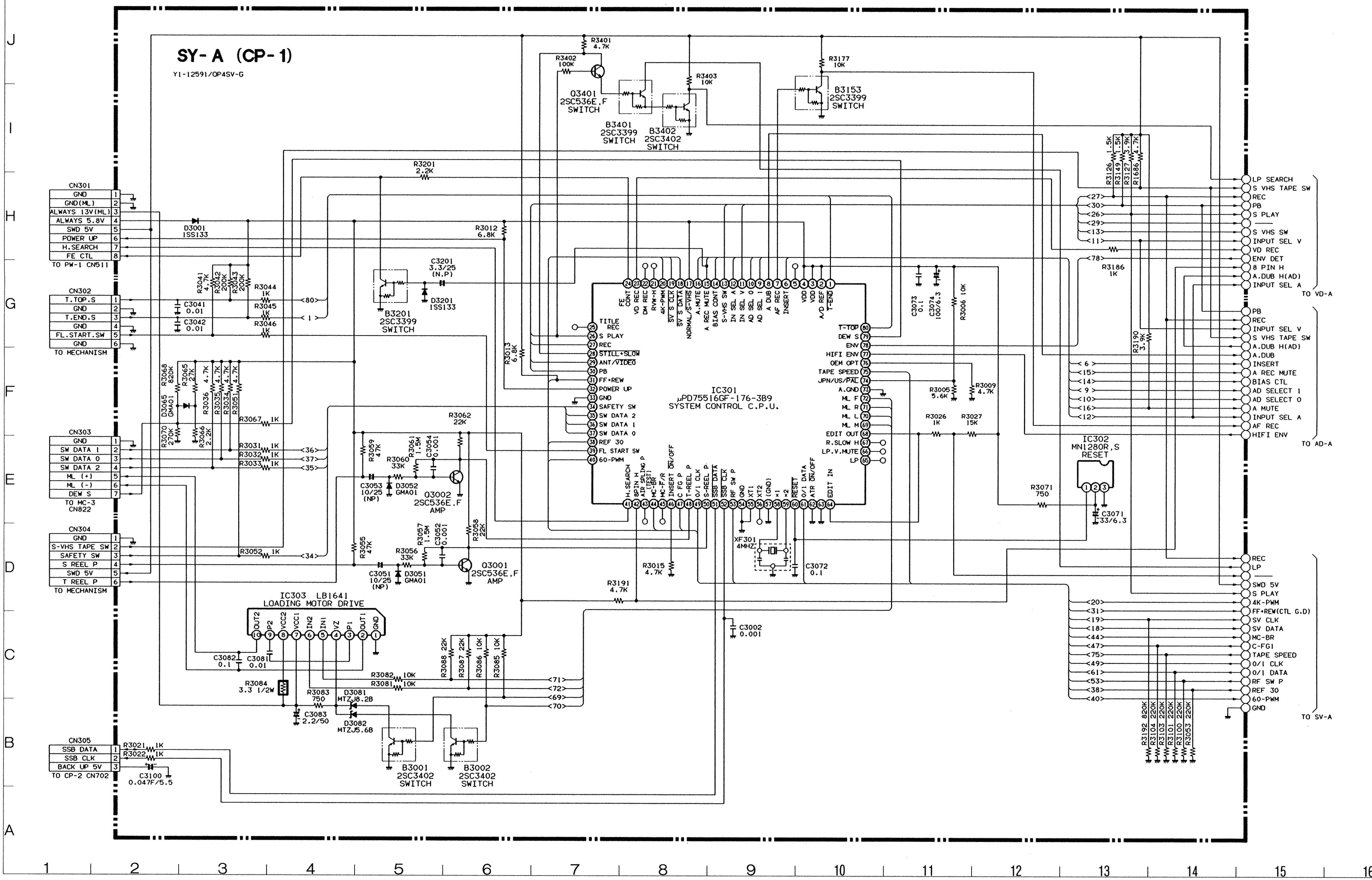
AD-2 BOARD AUDIO LEVEL METER CIRCUIT DIAGRAM


AD - 2
A2-12571/OP4S-E
CN261
H.P.LCH OUT 1
GND 2
GND 3
H.P.RCH OUT 4
HIFI L 5
METER LCH 6
H.P.CTL 7
METER RCH 8
REC LEV.CTL 9
10
REC BAL.CTL 11
SWD 10V 12
TRACK.SIG 13
SWD 5V 14
MIC SIG. 15
MIC IN L 16
BAL.CTL 17
BAL.VOL.REF. 18
TO CP-1(AD-A) CN203
HEADPHONE VOL.
L2601 100μ
L2602 100μ
JK262
HEADPHONE JACK
C2612 0.01
C2611 0.01
VR261 10KB
REC LEV.
REC BAL.
VR260 10KB
VR262 10KB
VR241 10K
METER LCH ADJ
VR242 10K
METER RCH ADJ
VR265 10KB
MIC
EXT/HIFI
MIX VOL.
D2608 1SS133
D2609 1SS133
IC261 BA15218N
GND
VCC
R2601 10K
R2602 100K
C2601 47/6.3
R2603 11K
JK261
MIC JACK
C2605 10/16
R2604 150K
C2602 15P
C2604 1/50
R2605 1K
R2606 15K
C2603 10/16
A2601
GND
VCC
HOLD RESET
AC/DC
MUTE
DC IN
RCH AC
LCH AC
LEVEL METER
R2609 10K
R2610 10K
R2611 1K
C2610 10/16
C2609 10/16
S2601 METER
TRACKING ◄► LEVEL ◄► OFF
S2603 EJECT
S2604 POWER
RR261 IR RECEIVER
S2602 NICAM SW
OFF ◄► AUTO
CN262
KEY IN 4
SEG.e
SEG.f
IR SIG.
HIFI L
ALWAYS 5V
NICAM
GND
TO TM-1 CN714
CN264
GND(METER)
SWD 5V(METER)
TO PW-1 CN513
D2604 EBR3668S S-VHS LED
R2613 390
PICTURE VOLUME
R2619 5.6K
SHARP
SOFT
VR267 20KB
R2620 3.3K
B2601 DTC114EL SWITCH
CN263
S VHS H
GND
SWD 5V
PICTURE VR
TO VD-A(CP-1) CN166

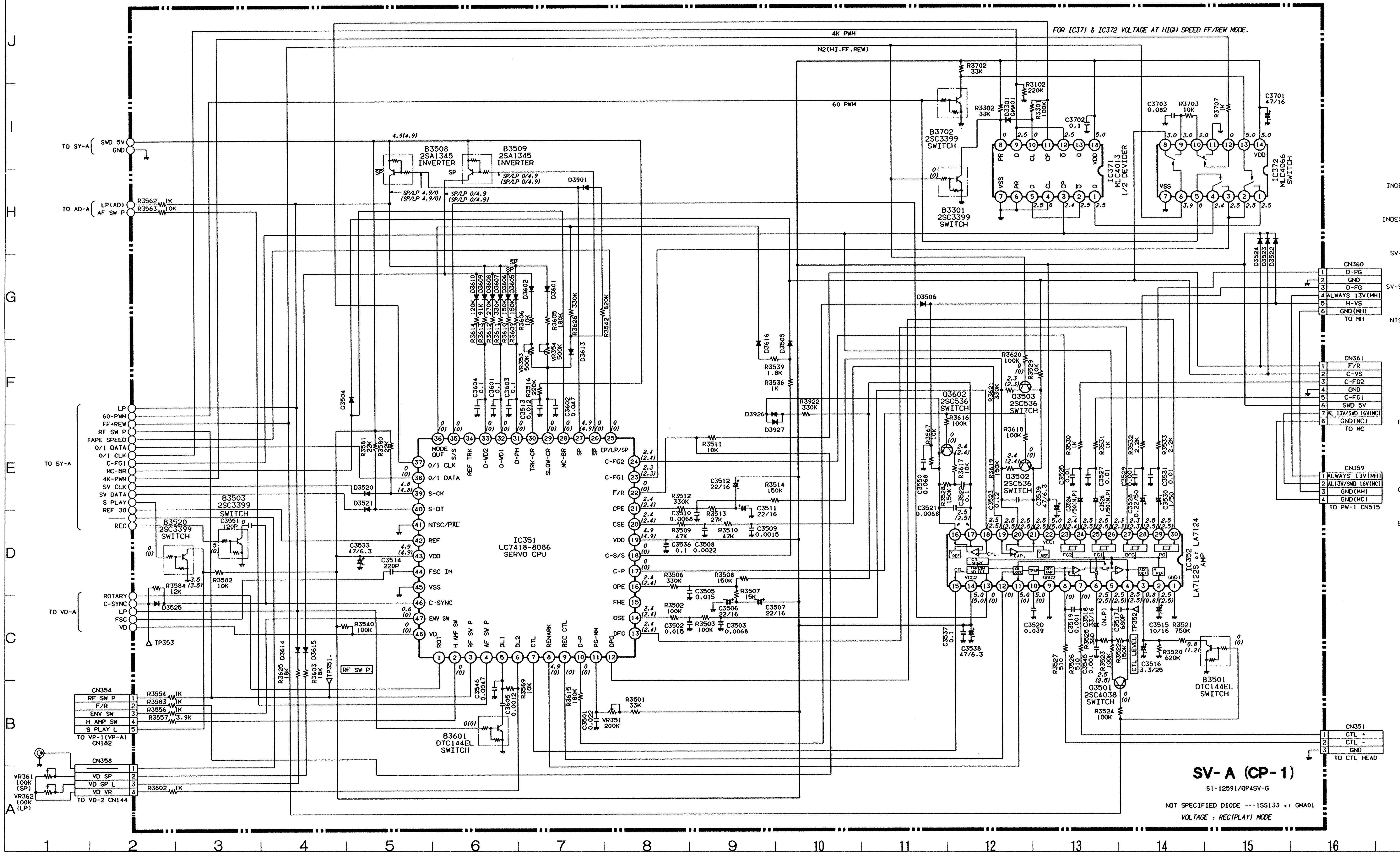
VP-1 BOARD (AP-A) AUDIO PRE-AMP CIRCUIT DIAGRAM


VP-1 (AP-A)
A3-12591/OP4SV-G
FOR REC CURR.CHECK
TP291
R2908 10
R2907 10
C2917 0.1
C2916 0.1/50
R2904 22K
C2914 0.01
C2912 0.01
C2911 0.1/50
R2903 22K
C2907 0.01
C2908 47/6.3
C2910 0.01
R2911 150
L2902 100μ
C2909 0.01
IC291 UPC2350CS AF HEAD AMP
REC GND
NC
SW
PB
SW.P
REC VCC
REC MUTE ON/OFF
MUTE HIGH
BIAS
36DB
1/2 VCC
HEAD SW
PB GND
C2901 0.01
C2904 0.01
C2905 0.01
R2901 1K
C2906 0.01
C2903 0.01
C2902 47/16
L2901 100μ
AF -
AF COM
AF +
TO VP-A
CN291
AF SW PULSE
GND
PB AF
1.4M 1.8M AF REC
AF REC CTL
SWD 5V
TO AD-A(CP-1) CN202
REC 12V
GND
TO VP-A
VOLTAGE : REC(PLAY) MODE

CP-1 BOARD (SY-A) SYSTEM CONTROL CIRCUIT DIAGRAM


SY-A (CP-1)
Y1-12591/0P4SV-G
CN301
GND
GND(ML)
ALWAYS 13V(ML)
ALWAYS 5.8V
SWD 5V
POWER UP
H.SEARCH
FE CTL
TO PW-1 CN511
CN302
T.TOP.S
GND
T.END.S
GND
FL.START.SW
GND
TO MECHANISM
CN303
GND
SW DATA 1
SW DATA 0
SW DATA 2
ML (+)
ML (-)
DEW S
TO MC-3 CN822
CN304
GND
S-VHS TAPE SW
SAFETY SW
S REEL P
SWD 5V
T REEL P
TO MECHANISM
CN305
SSB DATA
SSB CLK
BACK UP 5V
TO CP-2 CN702
D3001 1SS133
Q3401 2SC536E,F SWITCH
B3401 2SC3399 SWITCH
B3402 2SC3402 SWITCH
B3153 2SC3399 SWITCH
B3201 2SC3399 SWITCH
D3201 1SS133
Q3002 2SC536E,F AMP
Q3001 2SC536E,F AMP
IC303 LB1641 LOADING MOTOR DRIVE
B3001 2SC3402 SWITCH
B3002 2SC3402 SWITCH
D3081 MTZJ8.2B
D3082 MTZJ5.6B
IC301 μPD75516GF-176-3B9 SYSTEM CONTROL C.P.U.
IC302 MN1280R,S RESET
XF301 4MHZ
LP SEARCH
S VHS TAPE SW
REC
PB
S PLAY
S VHS SW
INPUT SEL V
VD REC
ENV DET
8 PIN H
A.DUB H(AD)
INPUT SEL A
TO VD-A
PB
REC
INPUT SEL V
S VHS TAPE SW
A.DUB H(AD)
A.DUB
INSERT
A REC MUTE
BIAS CTL
AD SELECT 1
AD SELECT 0
A MUTE
INPUT SEL A
AF REC
HIFI ENV
TO AD-A
REC
LP
SWD 5V
S PLAY
4K-PWM
FF+REW(CTL G.D)
SV CLK
SV DATA
MC-BR
C-FG1
TAPE SPEED
0/1 CLK
0/1 DATA
RF SW P
REF 30
60-PWM
GND
TO SV-A

CP-1 BOARD (SV-A) SERVO CIRCUIT DIAGRAM


FOR IC371 & IC372 VOLTAGE AT HIGH SPEED FF/REW MODE.
4K PWM
N2(HI.FF.REW)
60 PWM
TO SY-A
SWD 5V
GND
TO AD-A
LP(AD)
AF SW P
B3508 2SA1345 INVERTER
B3509 2SA1345 INVERTER
B3702 2SC3399 SWITCH
B3301 2SC3399 SWITCH
IC371 MLC4013 1/2 DEVIDER
IC372 MLC4066 SWITCH
IC351 LC7418-8086 SERVO CPU
B3503 2SC3399 SWITCH
B3520 2SC3399 SWITCH
Q3602 2SC536 SWITCH
Q3503 2SC536 SWITCH
Q3502 2SC536 SWITCH
IC352 LA7122S or LA7124 AMP
Q3501 2SC4038 SWITCH
B3501 DTC144EL SWITCH
B3601 DTC144EL SWITCH
VR351 200K
CN360
D-PG
GND
D-FG
ALWAYS 13V(MH)
H-VS
GND(MH)
TO MH
CN361
F/R
C-VS
C-FG2
GND
C-FG1
SWD 5V
AL 13V/SWD 16V(MC)
GND(MC)
TO MC
CN359
ALWAYS 13V(MH)
AL13V/SWD 16V(MC)
GND(MH)
GND(MC)
TO PW-1 CN515
CN351
CTL +
CTL -
GND
TO CTL HEAD
CN354
RF SW P
F/R
ENV SW
H AMP SW
S PLAY L
TO VP-1(VP-A) CN182
CN358
VD SP
VD SP L
VD VR
TO VD-2 CN144
VR361 100K (SP)
VR362 100K (LP)
LP
60-PWM
FF•REW
RF SW P
TAPE SPEED
0/1 DATA
0/1 CLK
C-FG1
MC-BR
4K-PWM
SV CLK
SV DATA
S PLAY
REF 30
REC
TO VD-A
ROTARY
C-SYNC
LP
FSC
VD
TP353
TP351
RF SW P

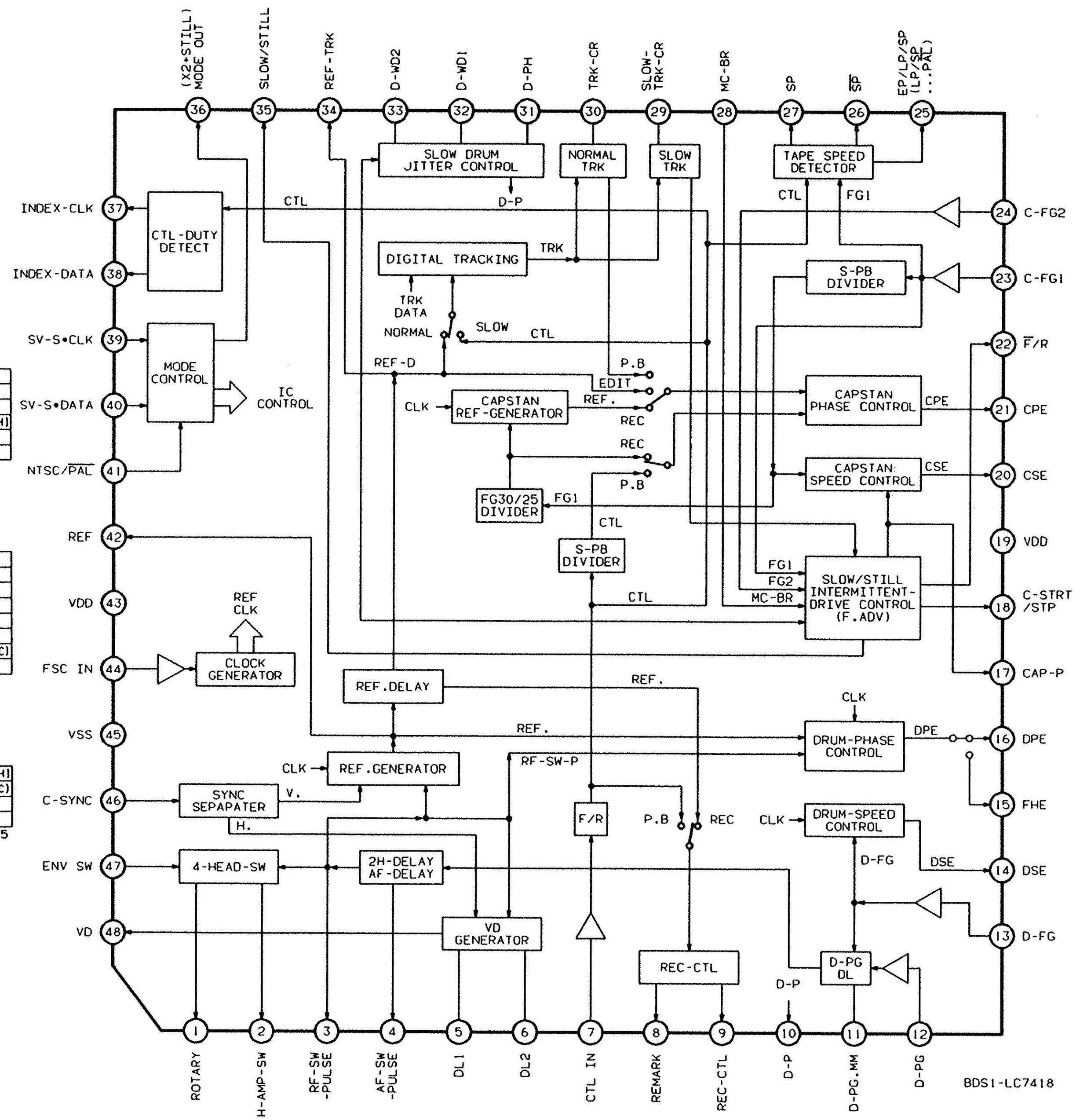
SV- A (CP-1)

S1-12591/OP4SV-G

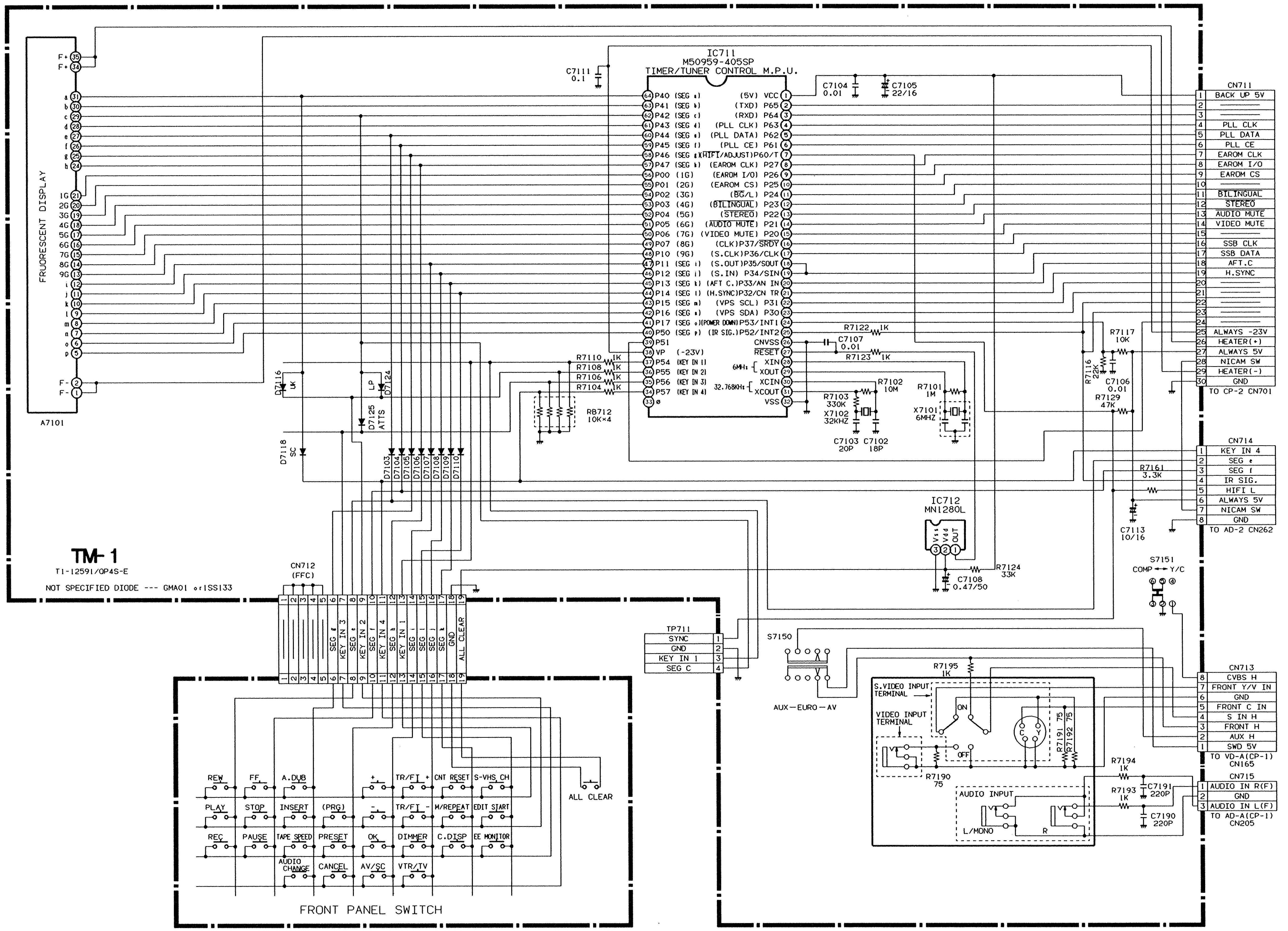
NOT SPECIFIED DIODE ---1SS133 or GMA01

VOLTAGE : REC(PLAY) MODE

IC351 (LC7418) DIGITAL SERVO IC INTER BLOCK DIAGRAM

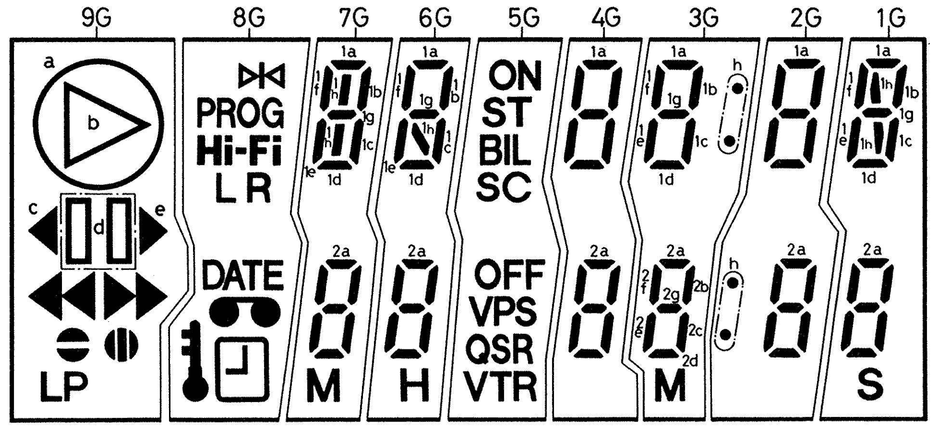

(X2•STILL) MODE OUT
SLOW/STILL
REF-TRK
D-WD2
D-WD1
D-PH
TRK-CR
SLOW-TRK-CR
MC-BR
SP
EP/LP/SP (...PAL)
INDEX-CLK
INDEX-DATA
SV-S•CLK
SV-S•DATA
NTSC/PAL
REF
VDD
FSC IN
VSS
C-SYNC
ENV SW
VD
CTL-DUTY DETECT
MODE CONTROL
IC CONTROL
SLOW DRUM JITTER CONTROL
NORMAL TRK
SLOW TRK
TAPE SPEED DETECTOR
DIGITAL TRACKING
TRK DATA
NORMAL
SLOW
REF-D
CLK
CAPSTAN REF-GENERATOR
EDIT
REC
P.B
FG30/25 DIVIDER
S-PB DIVIDER
CAPSTAN PHASE CONTROL
CAPSTAN SPEED CONTROL
SLOW/STILL INTERMITTENT-DRIVE CONTROL (F.ADV)
REF CLK
CLOCK GENERATOR
REF.DELAY
REF.GENERATOR
RF-SW-P
F/R
SYNC SEPAPATER
4-HEAD-SW
2H-DELAY AF-DELAY
VD GENERATOR
DRUM-PHASE CONTROL
DRUM-SPEED CONTROL
REC-CTL
D-PG DL
C-FG2
C-FG1
F/R
CPE
CSE
VDD
C-STRT /STP
CAP-P
DPE
FHE
DSE
D-FG
ROTARY
H-AMP-SW
RF-SW -PULSE
AF-SW -PULSE
DL1
DL2
CTL IN
REMARK
REC-CTL
D-P
D-PG.MH
D-PG
BDS1-LC7418

TM-1 BOARD TIMER & TUNING CONTROL CIRCUIT DIAGRAM



IC711
M50959-405SP
TIMER/TUNER CONTROL M.P.U.
IC712
MN1280L
FRUORESCENT DISPLAY
A7101
CN711
TO CP-2 CN701
CN714
TO AD-2 CN262
CN713
TO VD-A(CP-1) CN165
CN715
TO AD-A(CP-1) CN205
CN712 (FFC)
TP711
S7150
AUX—EURO—AV
S7151
COMP ←→ Y/C
TM-1
T1-12591/OP4S-E
NOT SPECIFIED DIODE --- GMA01 or 1SS133
FRONT PANEL SWITCH
REW
FF
A.DUB
PLAY
STOP
INSERT
(PRG)
REC
PAUSE
TAPE SPEED
PRESET
OK
DIMMER
C.DISP
EE MONITOR
AUDIO CHANGE
CANCEL
AV/SC
VTR/TV
TR/FI +
TR/FI −
CNT RESET
S-VHS CH
M/REPEAT
EDIT START
ALL CLEAR
S.VIDEO INPUT TERMINAL
VIDEO INPUT TERMINAL
AUDIO INPUT
L/MONO
R

9G: GRID & SEGMENT ASSIGMENT



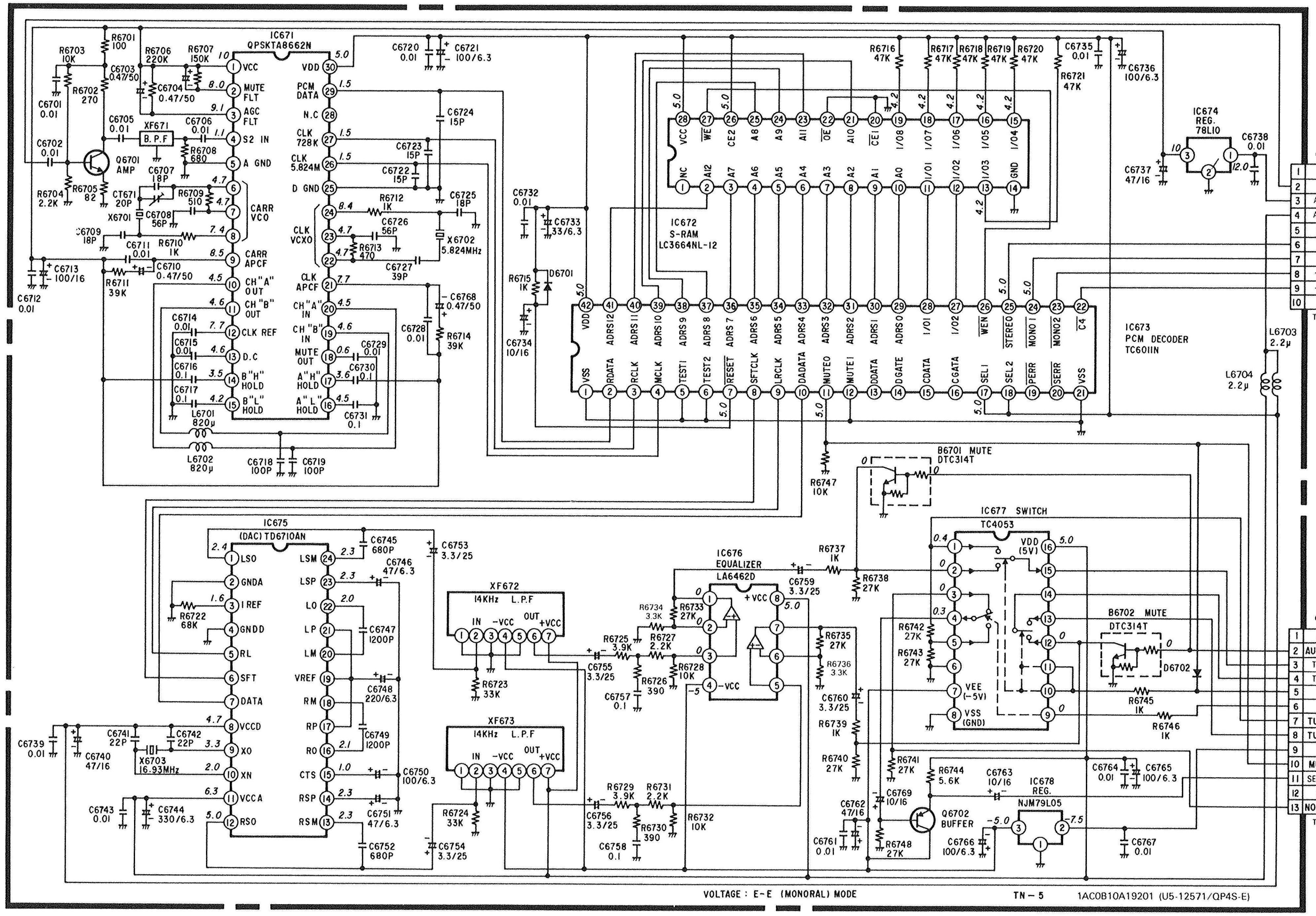
9G
8G
7G
6G
5G
4G
3G
2G
1G
PROG
Hi-Fi
L R
DATE
ON
ST
BIL
SC
OFF
VPS
QSR
VTR
LP
M
H
M
S

ANODE CONNECTION

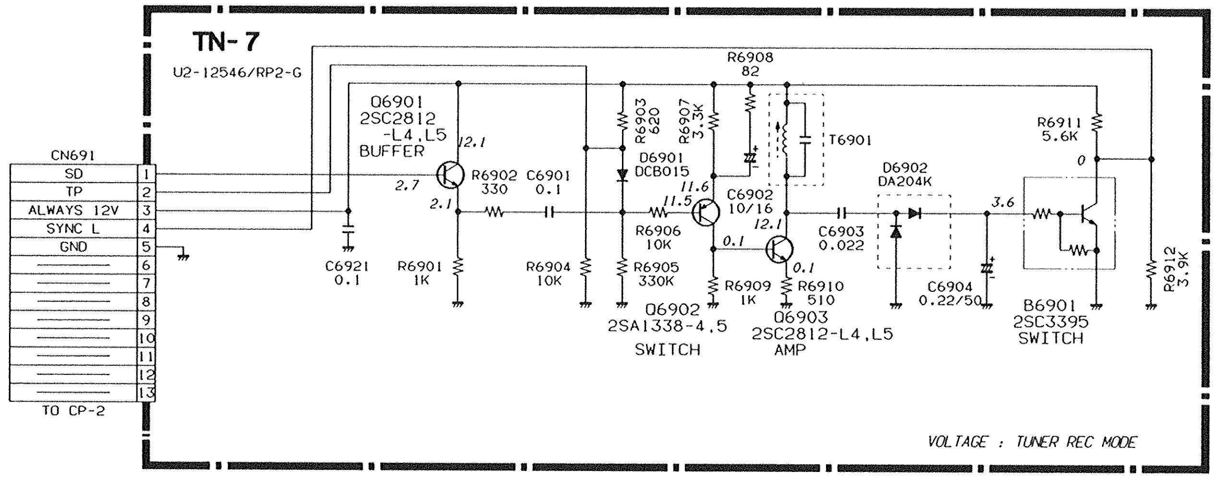
	9G	8G	7G	6G	5G	4G	3G	2G	1G
a	○	◘	1a	1a	**ON**	1a	1a	1a	1a
b	▷	⋈	1b	1b	**ST**	1b	1b	1b	1b
c	◀	**PROG**	1c	1c	**BIL**	1c	1c	1c	1c
d	▯▯	**Hi-Fi**	1d	1d	**SC**	1d	1d	1d	1d
e	▶	**L**	1e	1e	–	1e	1e	1e	1e
f	–	**R**	1f	1f	–	1f	1f	1f	1f
g	–	–	1g	1g	–	1g	1g	1g	1g
h	–	–	1h	1h	–	–	:(UPPER)	:(LOWER)	1h
i	◀◀	**DATE**	2a	2a	**OFF**	2a	2a	2a	2a
j	▶▶	●	2b	2b	**VPS**	2b	2b	2b	2b
k	⊖	🌡	2c	2c	**QSR**	2c	2c	2c	2c
l	◍	◫	2d	2d	**VTR**	2d	2d	2d	2d
m	**LP**	–	2e	2e	–	2e	2e	2e	2e
n	**EP**	–	2f	2f	–	2f	2f	2f	2f
o	–	–	2g	2g	–	2g	2g	2g	2g
p	–	–	**M**	**H**	–	**H**	**M**	**M**	**S**

9G/QP

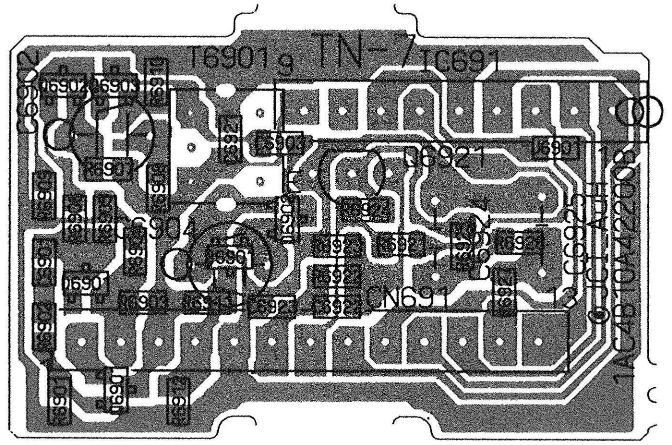
TN-5 BOARD NICAM DECODER


IC671 QPSKTA8662N
IC672 S-RAM LC3664NL-12
IC673 PCM DECODER TC6011N
IC674 REG. 78L10
IC675 (DAC) TD6710AN
IC676 EQUALIZER LA6462D
IC677 SWITCH TC4053
IC678 REG. NJM79L05
XF672 14KHz L.P.F
XF673 14KHz L.P.F
Q6701 AMP
Q6702 BUFFER
B6701 MUTE DTC314T
B6702 MUTE DTC314T
X6702 5.824MHz
X6703 16.93MHz
CN671
A GND
SIF IN
ALWAYS 12V
ALWAYS 5V
D GND
STEREO
BIL L
A GND
TO CP-2 CN602
CN672
A GND
AUDIO MUTE
TU L OUT
TU R OUT
MONO
A/V
TU L IN
TU R IN
-7.8V
MUTE OUT
SEL NORMAL
A GND
NORMAL IN
TO CP-2 CN603
VOLTAGE : E-E (MONORAL) MODE
TN-5
1AC0B10A19201 (U5-12571/QP4S-E)

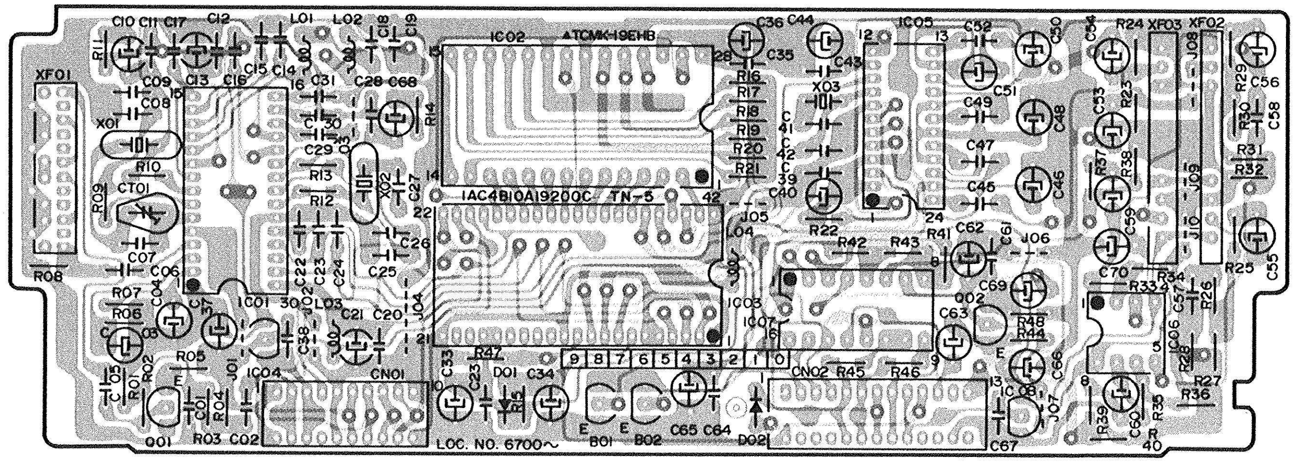
TN-7 BOARD SYNC DETECTOR CIRCUIT DIAGRAM


TN-7
U2-12546/RP2-G
CN691
SD
TP
ALWAYS 12V
SYNC L
GND
TO CP-2
Q6901 2SC2812-L4,L5 BUFFER
D6901 DCB015
Q6902 2SA1338-4.5 SWITCH
Q6903 2SC2812-L4,L5 AMP
D6902 DA204K
T6901
B6901 2SC3395 SWITCH
VOLTAGE : TUNER REC MODE

TN-7 P.C.B.

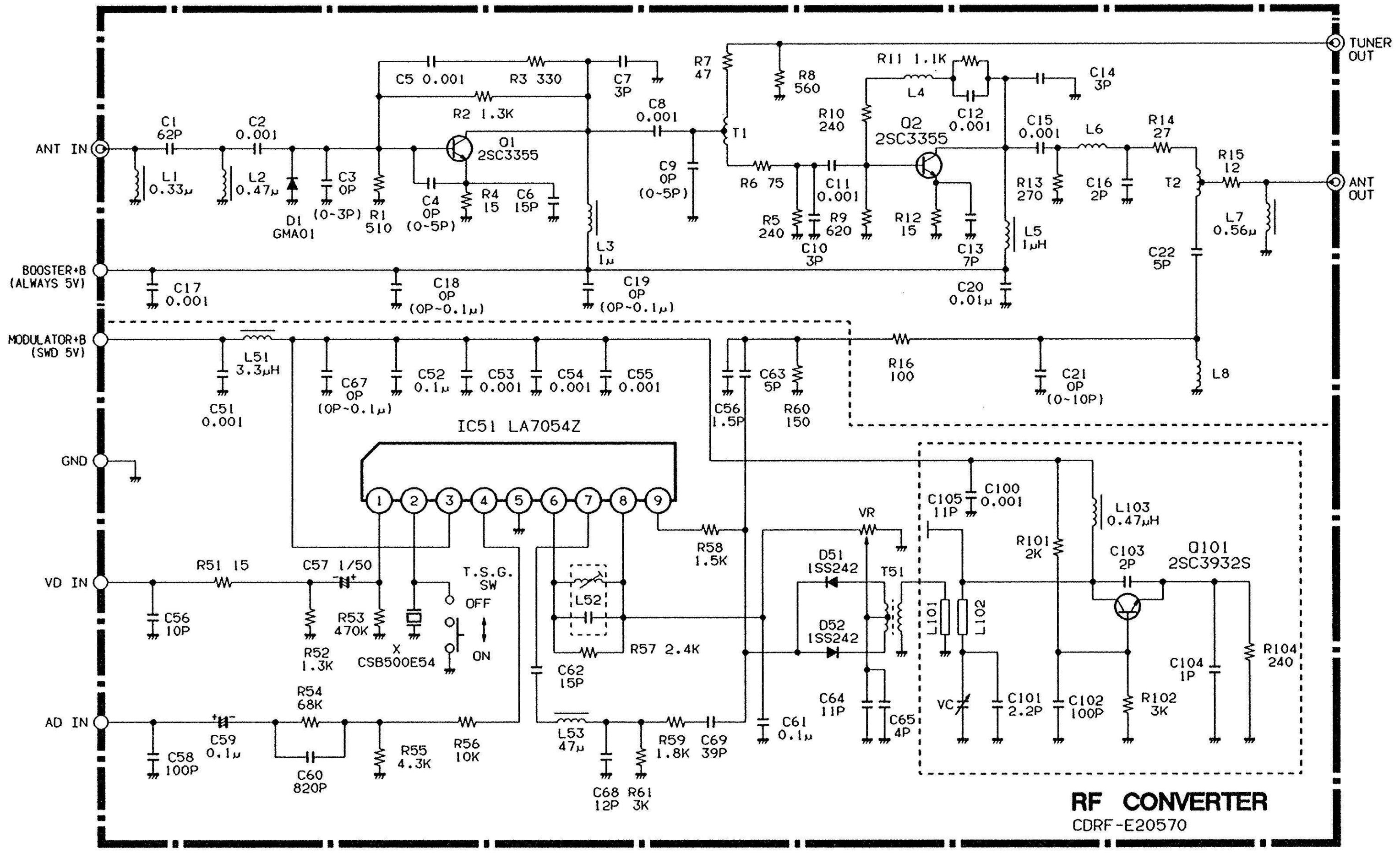

TN-7
T6901
IC691
CN691
1AC4B10A42200B

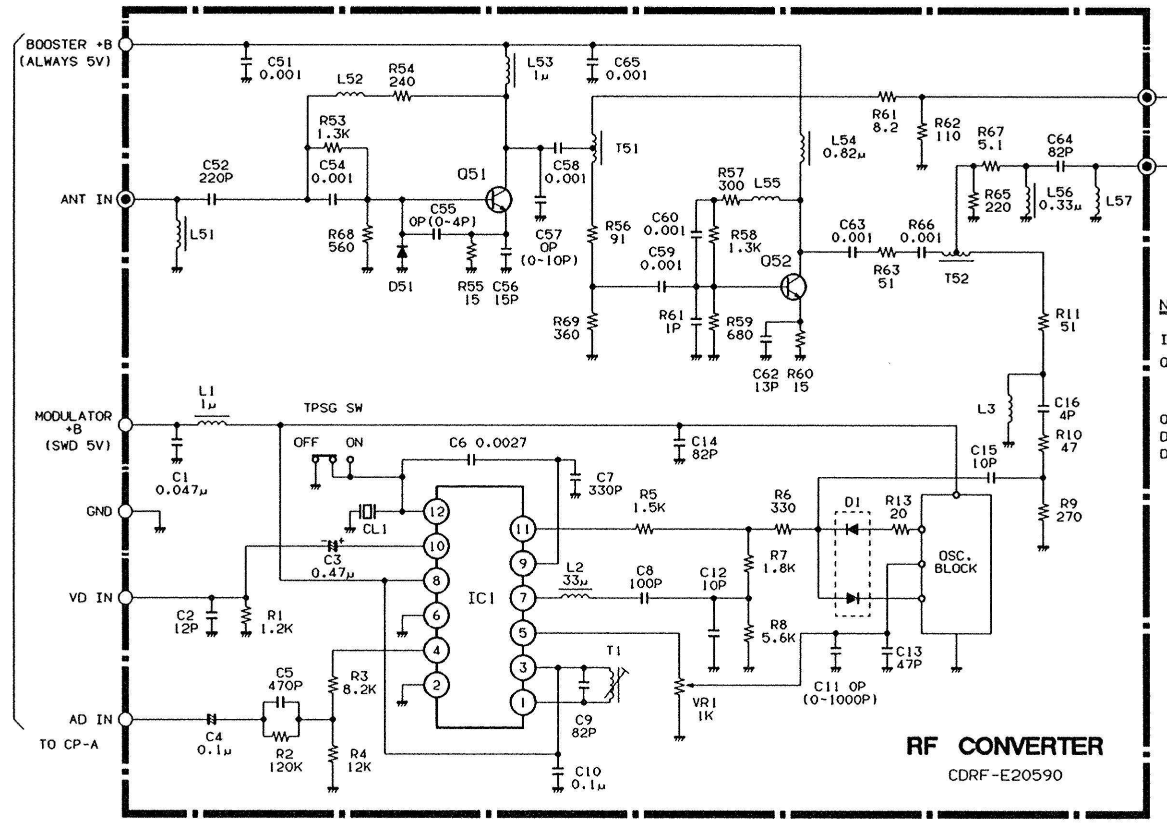
TN-5 P.C.B.


IC02
TCMK-19EHB
IC05
IAC4B10A19200C TN-5
LOC. NO. 6700~

NOTE: ▨ BOTTOM SIDE FOIL
▨ TOP SIDE FOIL

RF CONVERTER CIRCUIT DIAGRAM


ANT IN
BOOSTER+B (ALWAYS 5V)
MODULATOR+B (SWD 5V)
GND
VD IN
AD IN
TUNER OUT
ANT OUT
IC51 LA7054Z
Q1 2SC3355
Q2 2SC3355
Q101 2SC3932S
D51 1SS242
D52 1SS242
T.S.G. SW
X CSB500E54
ON
OFF
VR
T51
T1
T2
RF CONVERTER
CDRF-E20570


BOOSTER +B (ALWAYS 5V)
ANT IN
MODULATOR +B (SWD 5V)
GND
VD IN
AD IN TO CP-A
TUNER OUT
ANT OUT
Q51
Q52
T51
T52
TPSG SW
OFF
ON
IC1
D1
OSC. BLOCK
VR1 1K
T1
RF CONVERTER
CDRF-E20590

NOTE

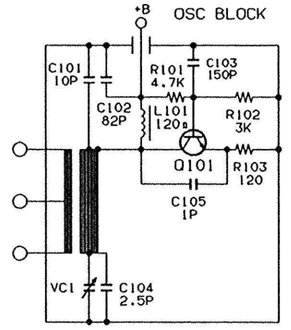
IC1 : AJ7080

Q51.Q52: 2SC2570.2SC3355.
2SC3512.2SC3779.
MPS571.MPS911.
OR EQUIVALENT

Q101 : 2SC2480 OR EQUIVALENT

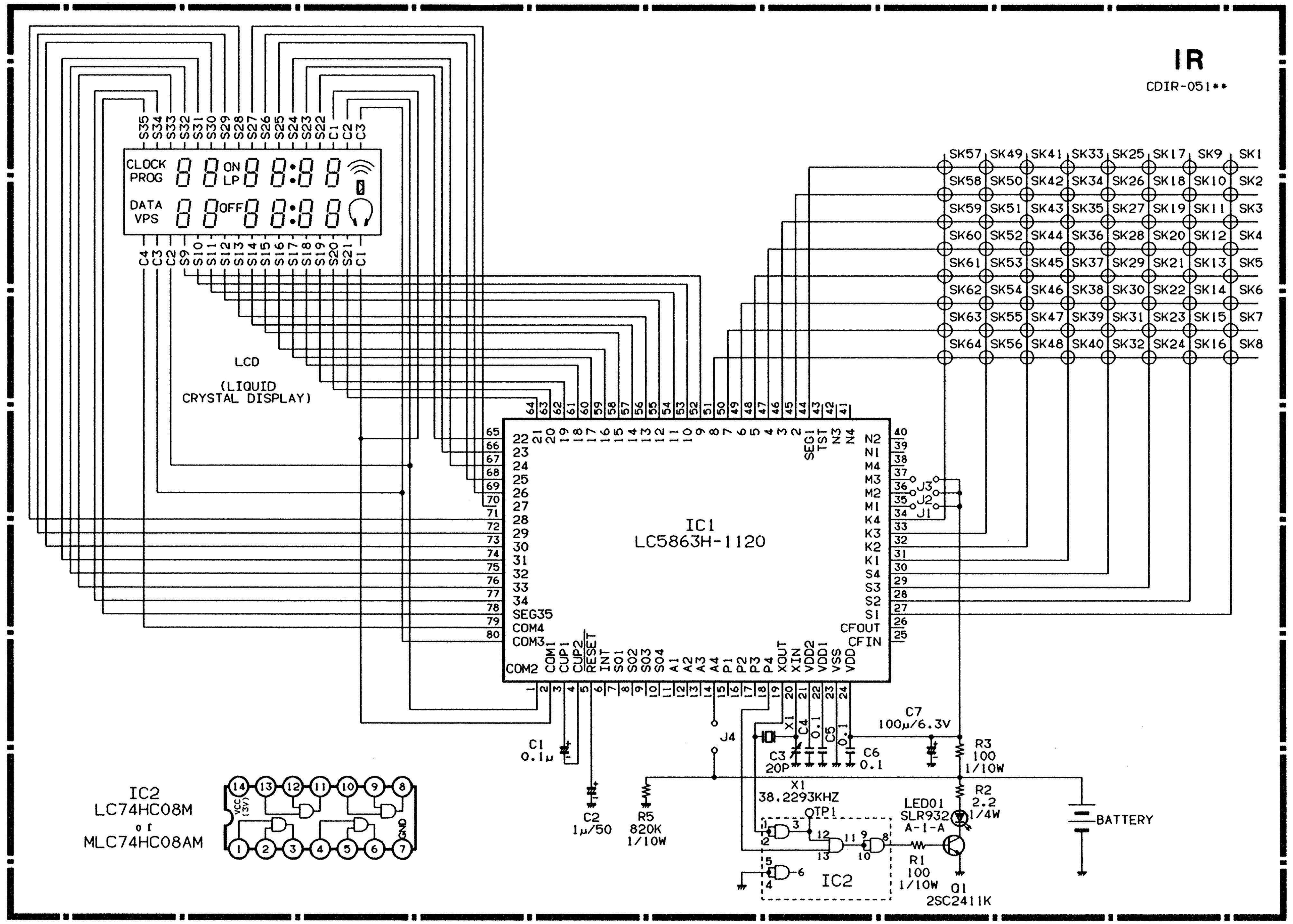
D1 : HSM276.ND411G OR EQUIVALENT

D51 : 1SS133.1SS83 OR EQUIVALENT


+B
OSC BLOCK
C101 10P
C102 82P
C103 150P
R101 4.7K
L101 120n
R102 3K
R103 120
Q101
C105 1P
VC1
C104 2.5P

Note: Either one of these RF converters, type CDRF-E20570 or CDRF-E20590 is used, depending on availability.

IR REMOTE CONTROL CIRCUIT DIAGRAM


IR
CDIR-051••
LCD
(LIQUID CRYSTAL DISPLAY)
CLOCK
PROG
DATA
VPS
ON
LP
OFF
IC1
LC5863H-1120
IC2
LC74HC08M
or
MLC74HC08AM
C1 0.1μ
C2 1μ/50
R5 820K 1/10W
J4
C3 20P
X1 38.2293KHZ
C6 0.1
C7 100μ/6.3V
R3 100 1/10W
R2 2.2 1/4W
LED01 SLR932 A-1-A
R1 100 1/10W
Q1 2SC2411K
BATTERY
SK1
SK2
SK3
SK4
SK5
SK6
SK7
SK8
SK64

AVAILABLE KEY FUNCTION OF REMOTE CONTROL UNIT

KEY NO.	FUNCTION		KEY NO.	FUNCTION		KEY NO.	FUNCTION	
1	PAUSE	USE	23	MARK	USE	45	CHECK	USE
2	STOP	USE	24	CNT M	USE	46	CHSCAN	
3	MODE -	USE	25	CH +	USE	47	OK	
4	REC	USE	26	0/AV	USE	48	M.STILL	
5		USE	27	CH -	USE	49	3	USE
6	MODE +	USE	28	A.SEL	USE	50	2	USE
7	SEARCH	USE	29	CANCEL	USE	51	1	USE
8	SLOW	USE	30	←		52	VPS	
9	FF	USE	31	↑		53	PROG	USE
10	PLAY	USE	32	→		54	M.CALL	
11	BLANK	USE	33	9	USE	55	OSD	
12	REW	USE	34	8	USE	56	ERASE	
13	A.TR	USE	35	7	USE	57	TRANS	USE
14	C.DISP	USE	36	SC	USE	58	ZOOM	
15	SPECIAL	USE	37	CLOCK	USE	59	MONITOR	USE
16	RESET	USE	38	SIZE		60	VCR/TV	
17	EJECT		39	ART		61	POWER	USE
18	R.PLAY		40	INST		62	PRESET	
19	X2S		41	6	USE	63	NR	
20	A.DUB	USE	42	5	USE	64	MUTE	
21	INSERT	USE	43	4	USE			
22	↓		44	SP/LP	USE			

IR-05137

K

J

I

H

G

F

E

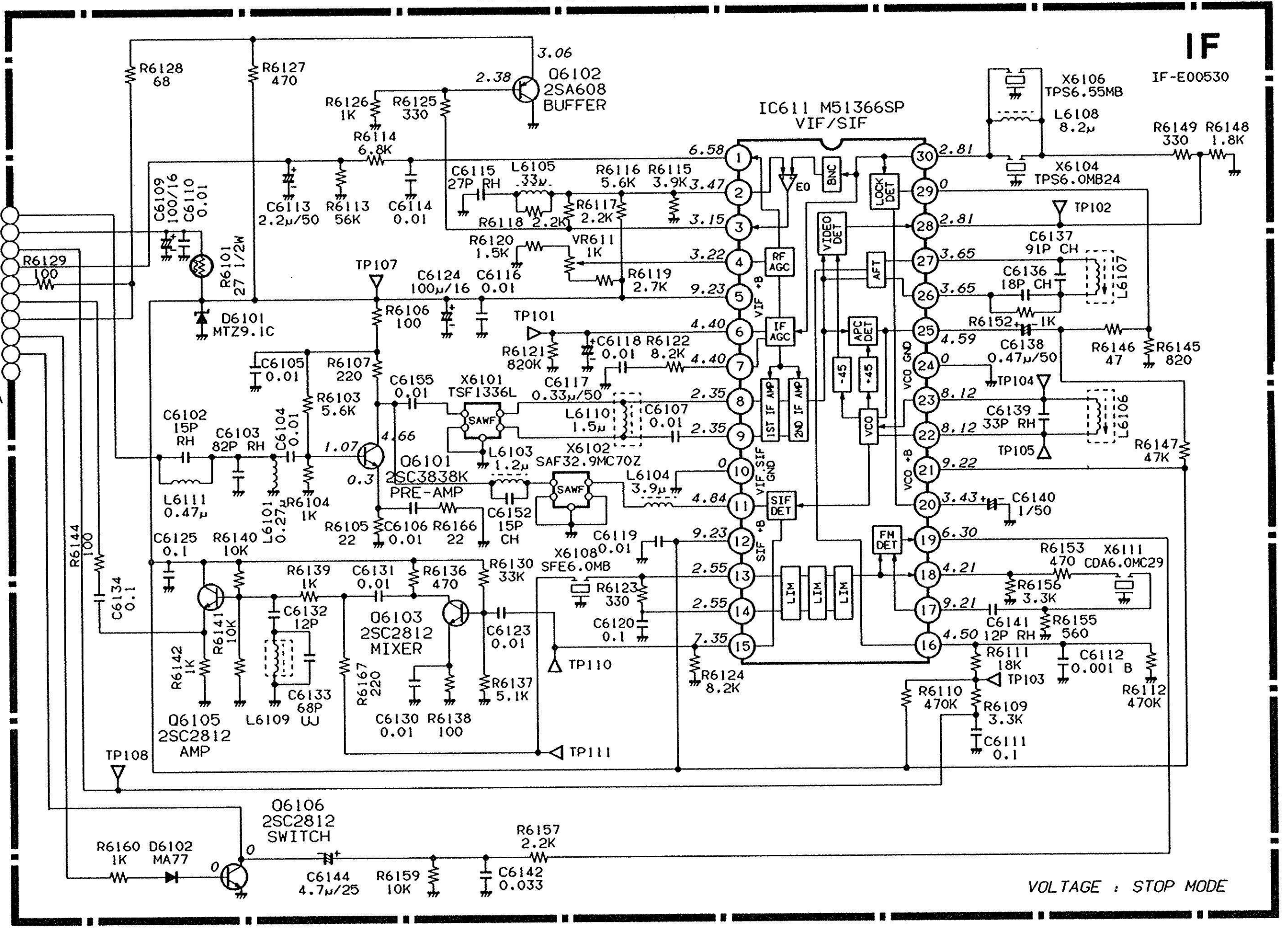
D

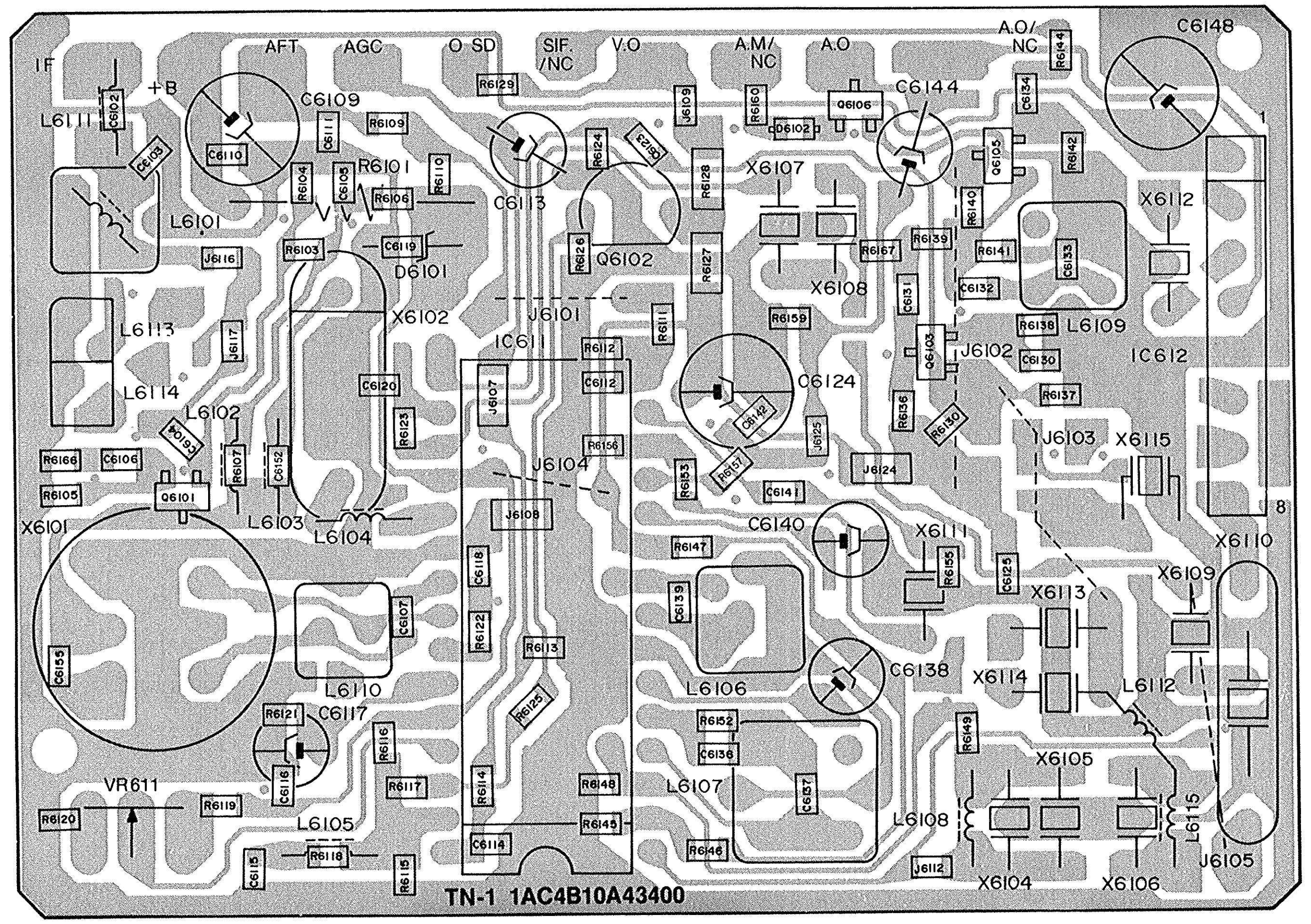
C

B

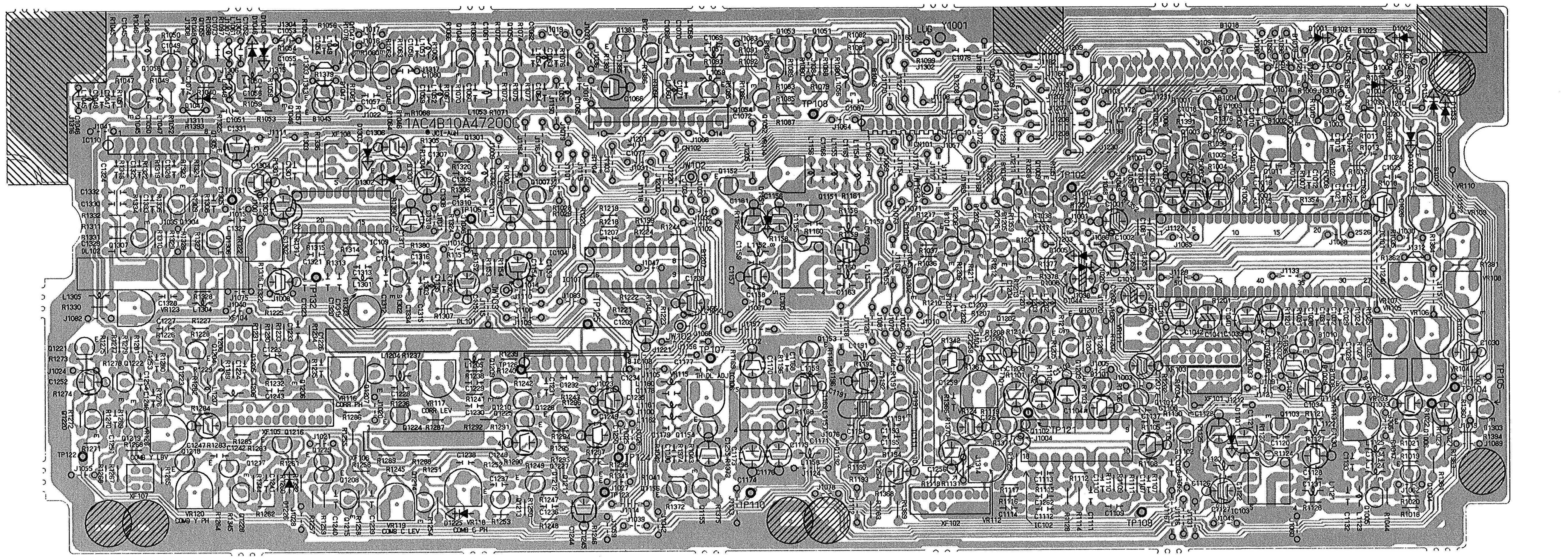
A

IF CIRCUIT DIAGRAM

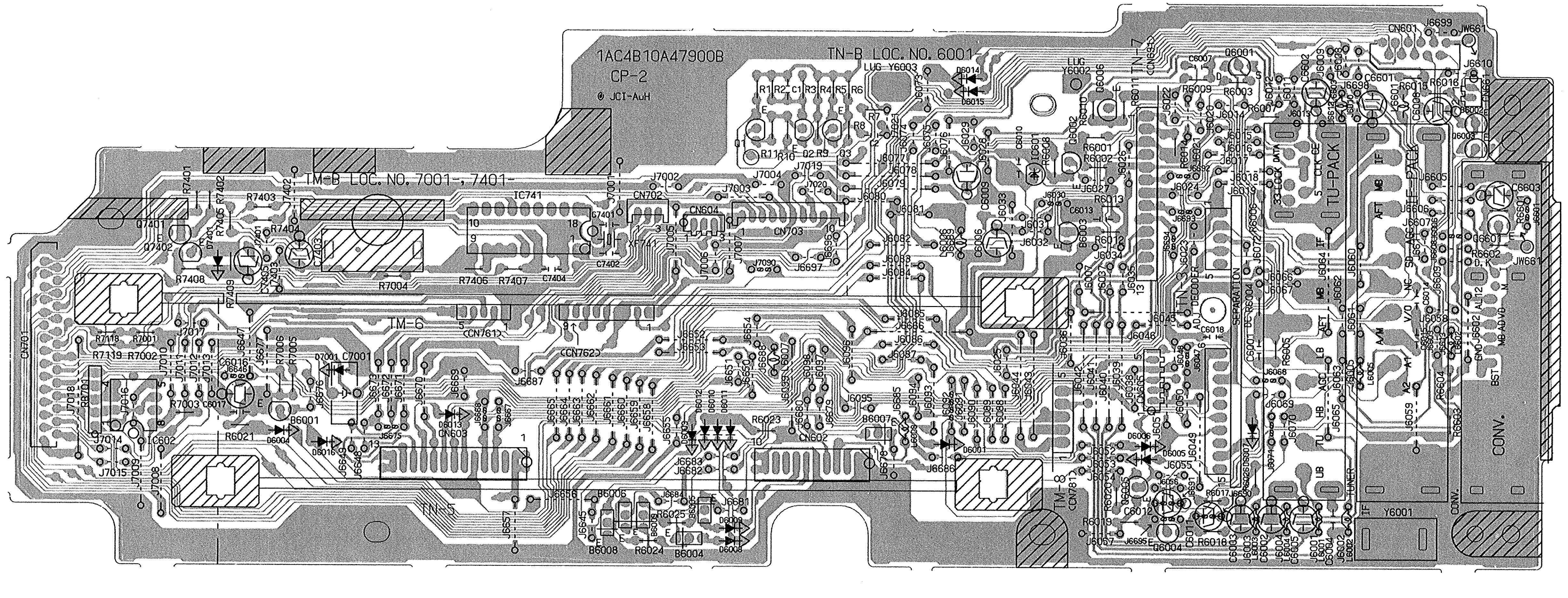

IF
IF-E00530
IC611 M51366SP
VIF/SIF
Q6102
2SA608
BUFFER
Q6101
2SC3838K
PRE-AMP
Q6103
2SC2812
MIXER
Q6105
2SC2812
AMP
Q6106
2SC2812
SWITCH
D6101
MTZ9.1C
D6102
MA77
X6101
TSF1336L
X6102
SAF32.9MC70Z
X6103
SFE6.0MB
X6104
TPS6.0MB24
X6106
TPS6.55MB
X6111
CDA6.0MC29
VR611
1K
TP101
TP102
TP103
TP104
TP105
TP107
TP108
TP110
TP111
IF
MB
AFT
AGC
SD
SIF.OUT
V.OUT
A.MUTE
A.OUT
N.C.
TO TN-A
VOLTAGE : STOP MODE


IF
+B
AFT
AGC
O.SD
SIF./NC
V.O
A.M./NC
A.O
A.O/NC
C6148
C6109
C6113
C6144
C6124
C6140
C6138
C6117
L6111
L6101
L6113
L6114
L6102
L6103
L6104
L6105
L6106
L6107
L6108
L6109
L6112
L6115
X6101
X6102
X6104
X6105
X6106
X6107
X6108
X6109
X6110
X6111
X6112
X6113
X6114
X6115
Q6101
Q6102
D6101
IC6101
IC612
J6101
J6102
J6103
J6104
J6105
VR611
TN-1 1AC4B10A43400

VD-1 P.C.B.

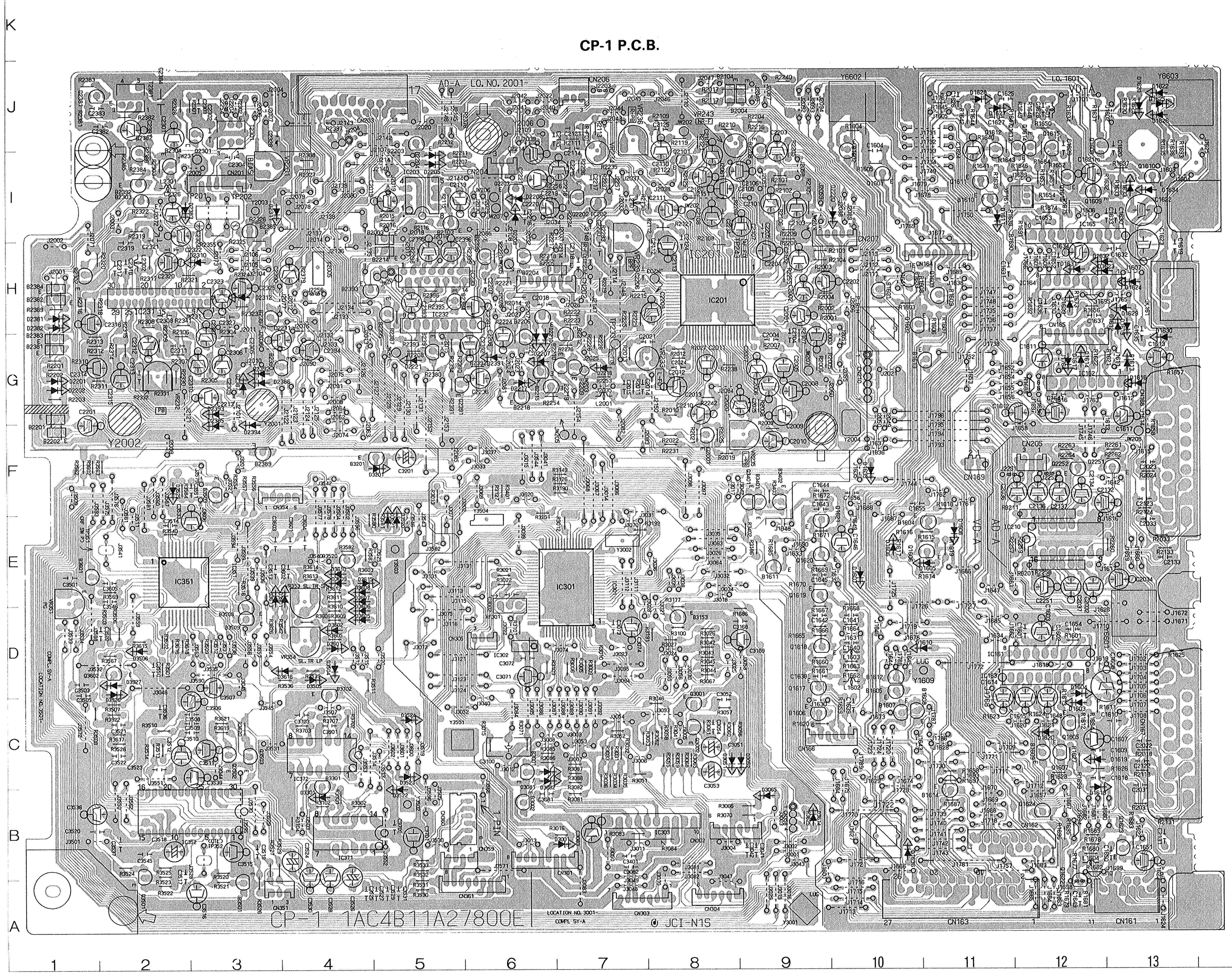

1AC4B10A47200C
LUG L1001
VR120
COMB Y PH
VR119
COMB C LEV
VR118
COMB C PH
VR117
COMB Y LEV
IC101
IC102
XF101
XF102
TP101
TP103
TP107
TP108
TP110
TP112
VR110

CP-2 P.C.B.

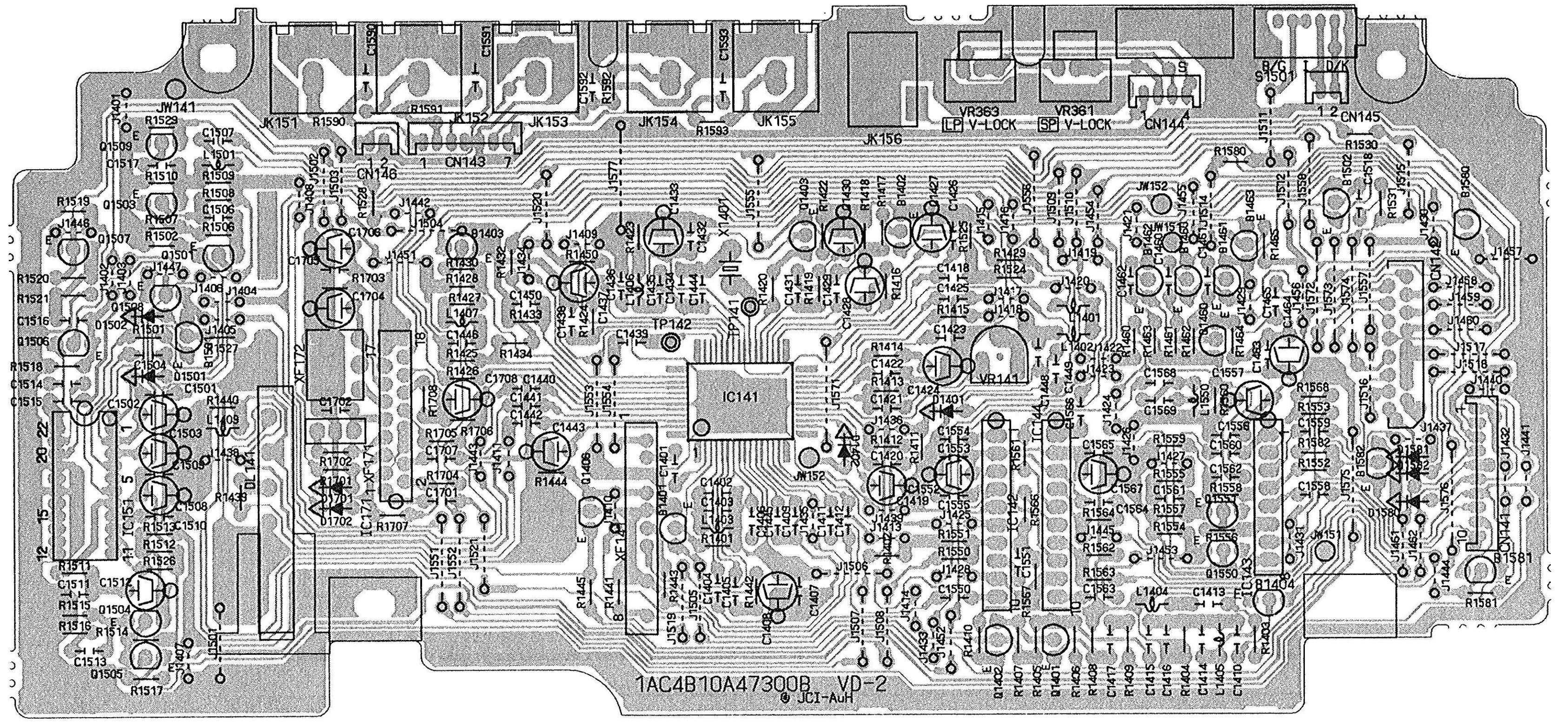

1AC4B10A47900B
CP-2
TN-B LOC. NO. 6001
TM-B LOC. NO. 7001~7401
TM-6
TN-5
IC741
CN601
CN602
CN603
CN604
CN702
CN703
CN761
CN762
LUG Y6003
LUG Y6002
TN-7
TU-PACK
S-VIDEO
CONV.
Y6001
Q7401
Q7402
Q6001

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

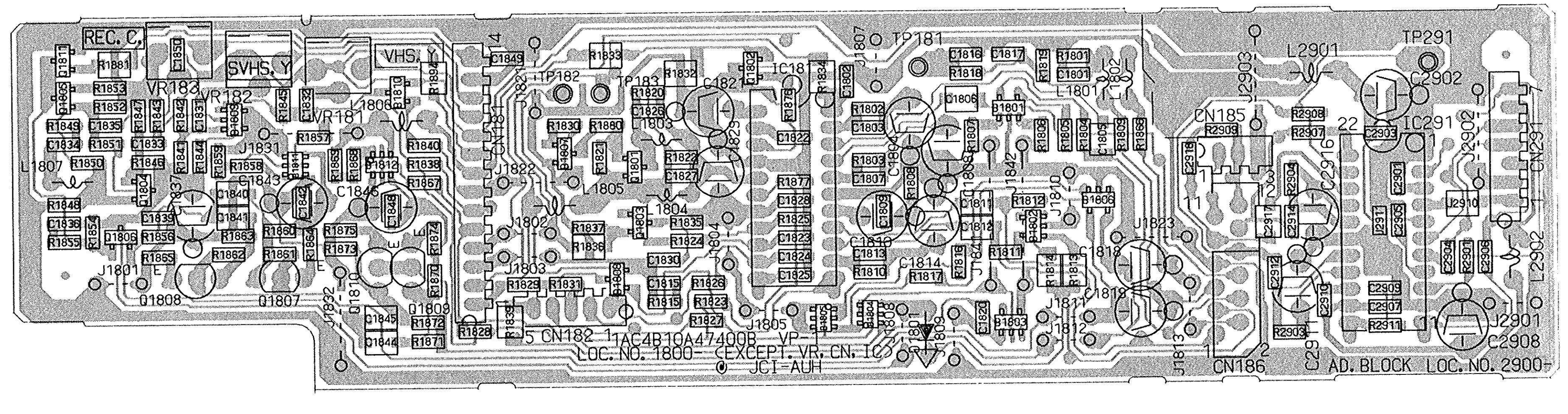
CP-1 P.C.B.


K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
IC201
IC301
IC351
Y2002
CN163
CN161
CP-1 1AC4B11A27800E
JCI-N1S
AD-A LO. NO. 2001
VD-1A

VD-2 P.C.B.


IC141
VR363
VR361
JK151
JK152
JK153
JK154
JK155
JK156
CN145
1AC4B10A47300B VD-2
JCI-AUH

VP-1 P.C.B.


REC. C
SVHS. Y
VHS. Y
TP181
TP182
TP291
IC291
CN185
CN186
CN182 1AC4B10A47400B
LOC. NO. 1800
JCI-AUH
AD. BLOCK LOC. NO. 2900
14
15
16
17
18
19
20
21
22
23
24

K

J

I

H

G

F

E

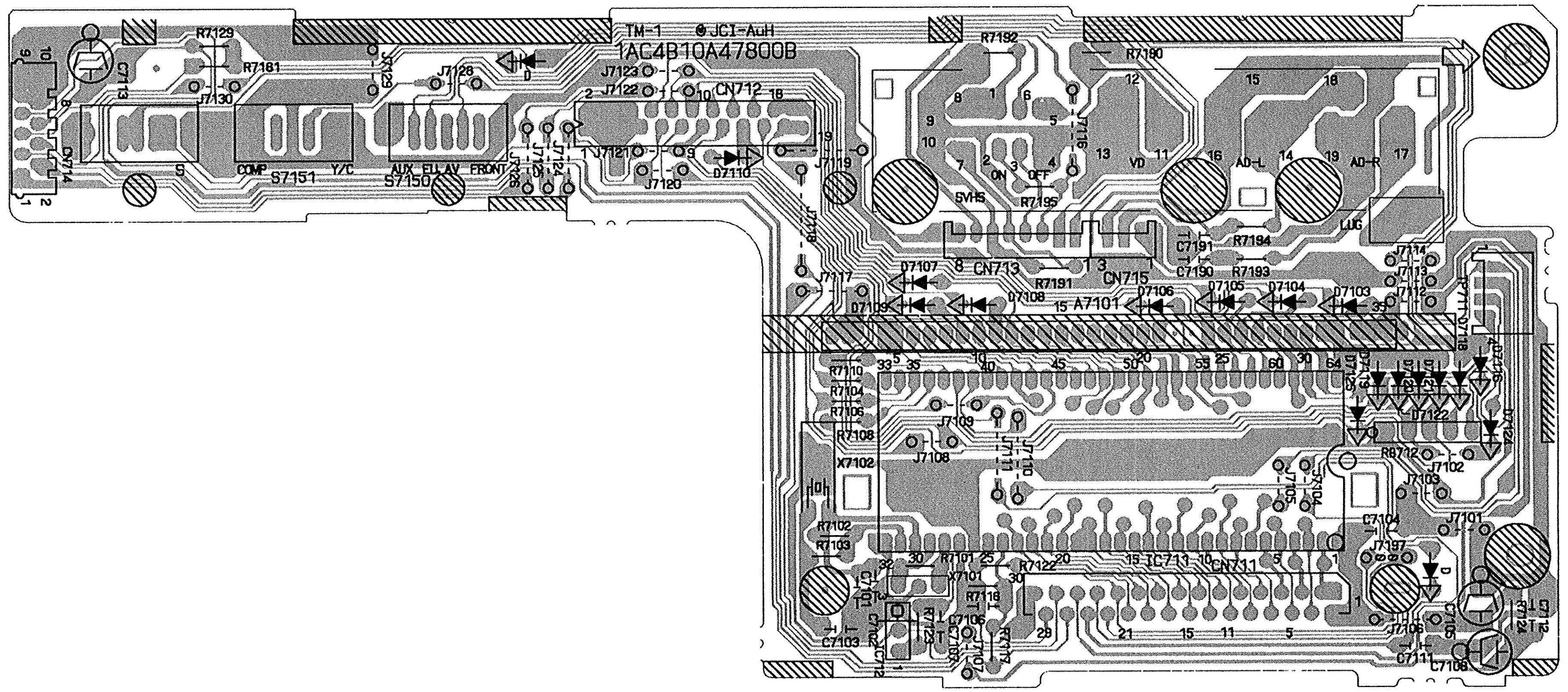
D

C

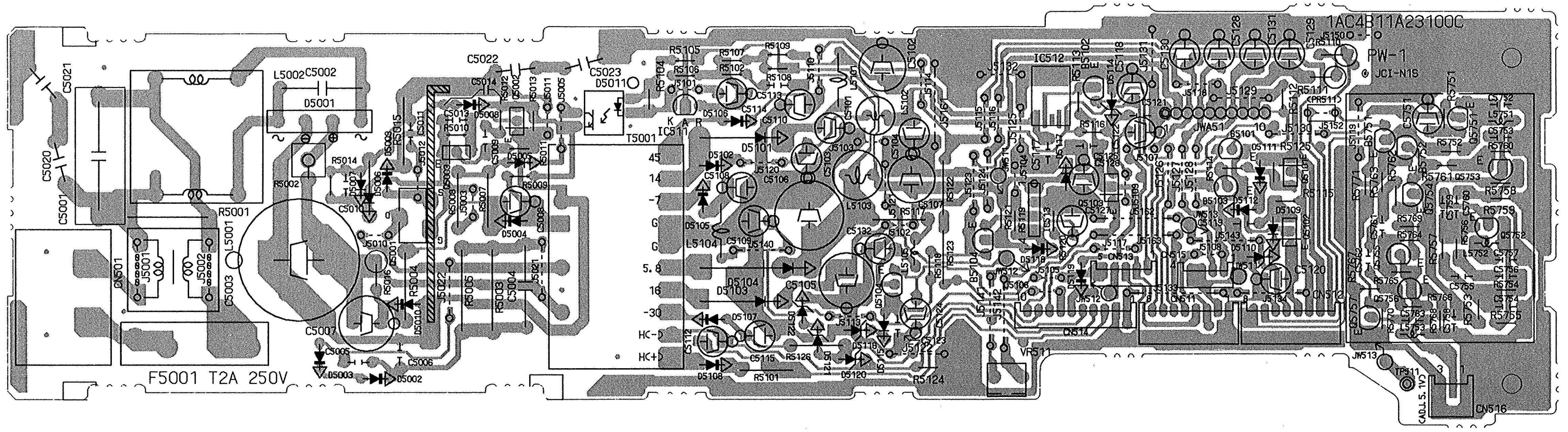
B

A

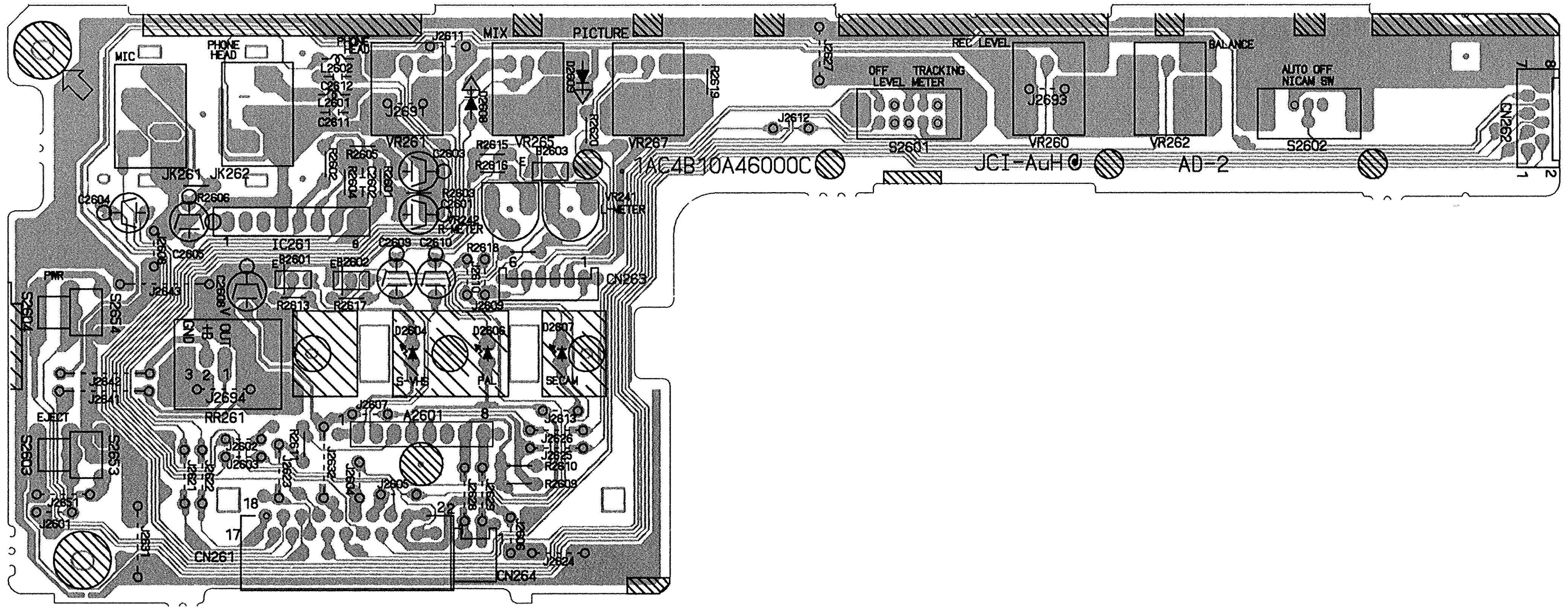
TM-1 P.C.B.


TM-1
JCI-AuH
1AC4B10A47800B
CN712
S7151
S7150
COMP
Y/C
AUX
FRONT
SVHS
VD
AD-L
AD-R
CN713
CN715
A7101
IC7101
IC7103
CN711
X7101
X7102
C7103
C7108

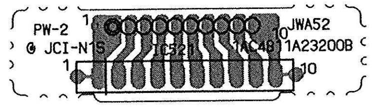
PW-1 P.C.B.


1AC4B11A23100C
PW-1
JCI-N1S
F5001 T2A 250V
L5001
L5002
C5001
C5002
C5020
C5021
C5022
C5023
D5001
D5002
D5003
T5001
IC5101
IC512
L5104
CN512
CN516
JW513

AD-2 P.C.B.


MIC
PHONE HEAD
MIX
PICTURE
REC LEVEL
BALANCE
OFF LEVEL
TRACKING METER
AUTO OFF NICAM SW
JK261
JK262
IC261
VR261
VR265
VR267
VR260
VR262
S2601
S2602
1AC4B10A46000C
JCI-AuH
AD-2
CN263
CN261
CN264
A2601
PWR
EJECT
SECAM
METER

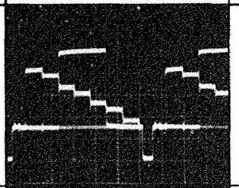
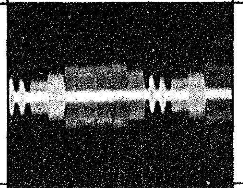
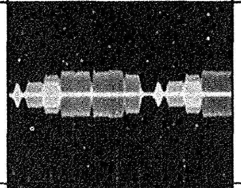
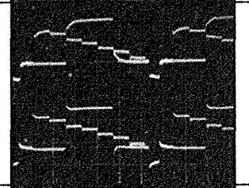
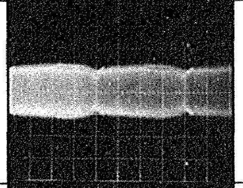
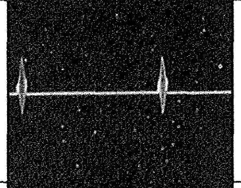
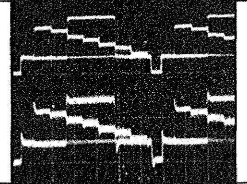
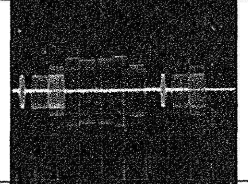
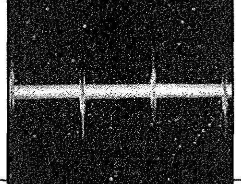
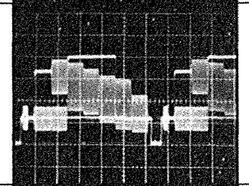
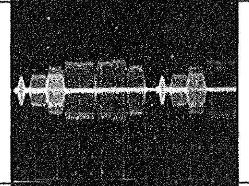
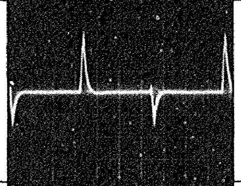
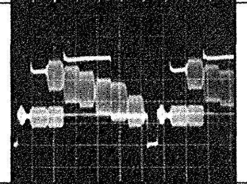
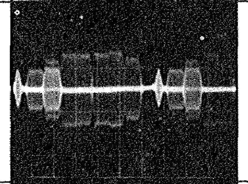
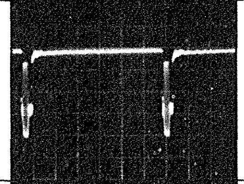
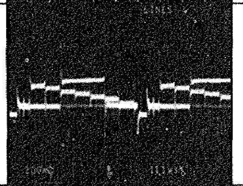
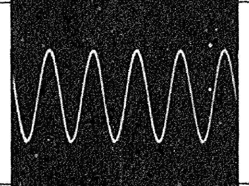
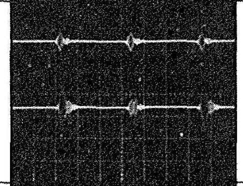
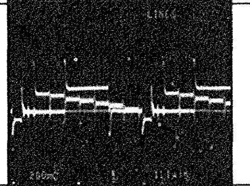
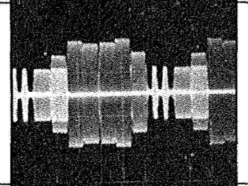
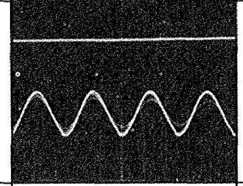
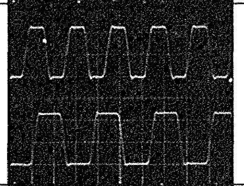
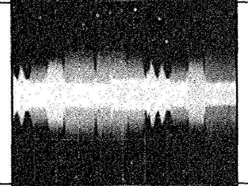
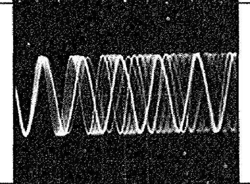
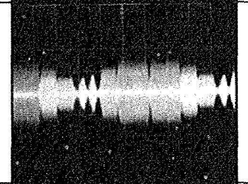
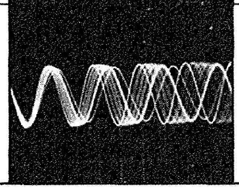
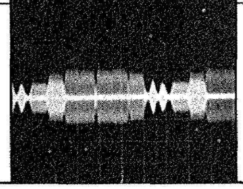
PW-2 P.C.B.


PW-2
JCI-N1S
JWA52
1AC4B11A23200B

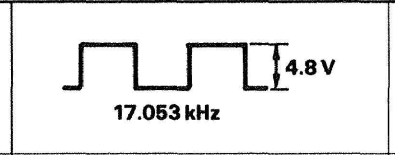
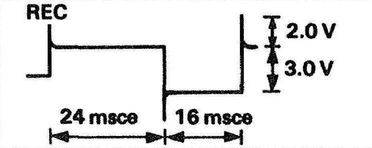
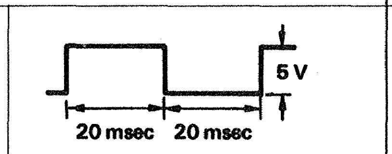
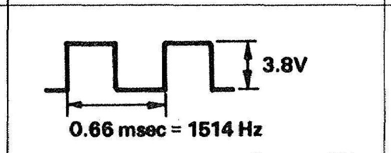
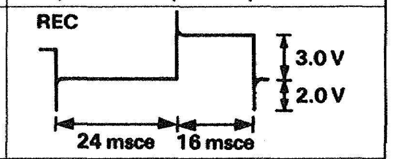
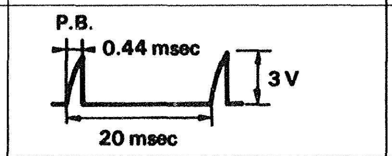
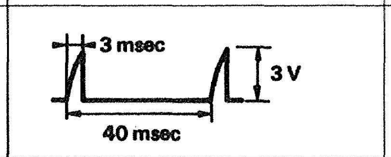
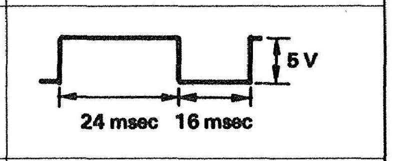
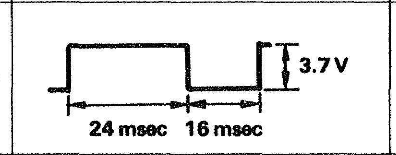
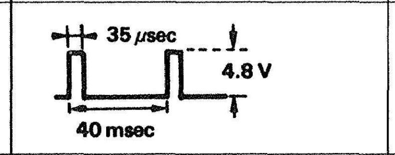
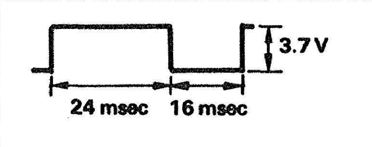
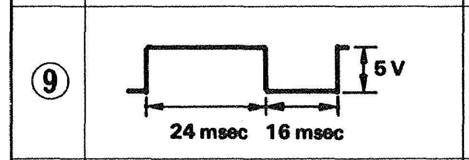
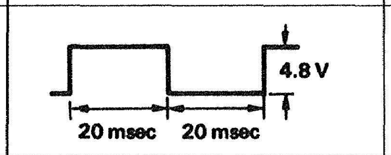
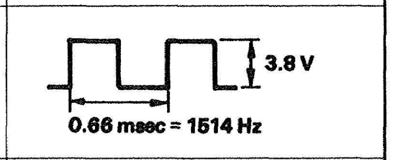
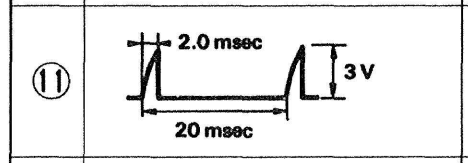
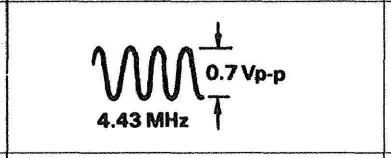
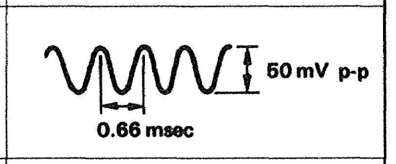
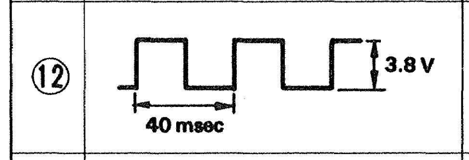
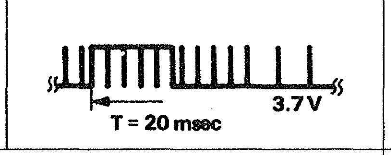
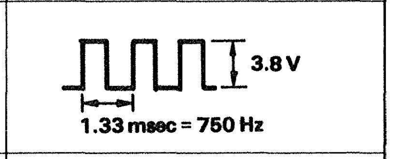
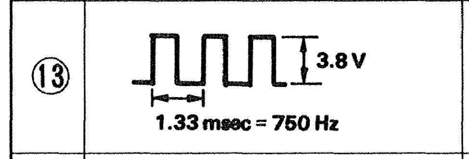
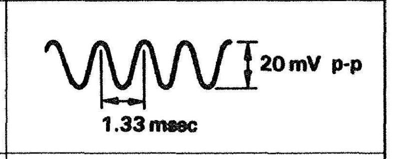
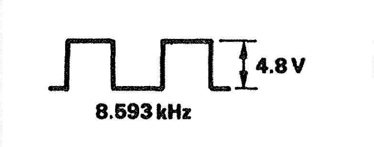
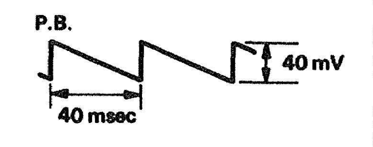
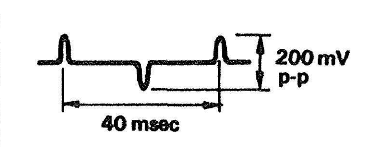
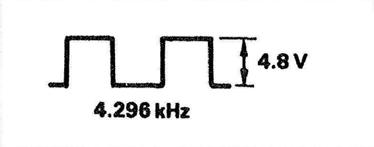
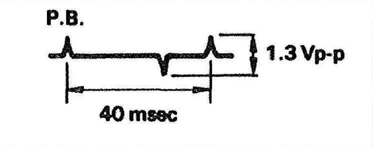
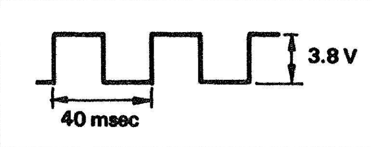
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

WAVEFORM OF VIDEO

WF-VQP

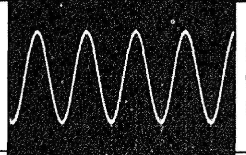
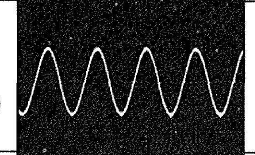
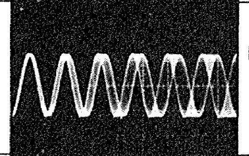
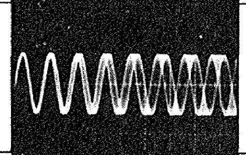
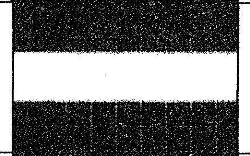
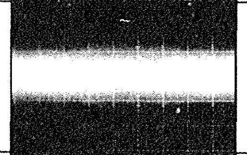
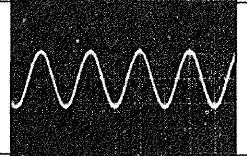
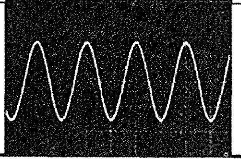
TEST LOCATION	WAVEFORM	MODE/LEVEL	TEST LOCATION	WAVEFORM	MODE/LEVEL	TEST LOCATION	WAVEFORM	MODE/LEVEL
VD-1 Q1220 Emitter (TP122)		REC, EE 1 Vp-p	VP-1 TP181		REC, (S-VHS) LP mode 30 mVp-p	VD-2 IC141 Pin 49		PB (S-VHS) 1 Vp-p
VD-1 IC101 Pin 38		(UPPER) REC (S-VHS) 0.5 Vp-p (LOWER) PB (S-VHS) 0.5 Vp-p	VD-1 IC101 Pin 28		PB 500 mVp-p	VD-2 IC151 Pin 9		PB (S-VHS) Burst 280 mVp-p
VD-1 IC101 Pin 40		(UPPER) REC (VHS) 0.5 Vp-p (LOWER) PB (VHS) 0.5 Vp-p	VD-1 Q1211 Emitter		REC, EE 600 mVp-p	VD-2 IC151 Pin 7		PB (S-VHS) APC Error 400 mVp-p
VD-1 IC101 Pin 4		EE 2 Vp-p	VD-1 IC109 Pin 12		REC, EE, PB 600 mVp-p	VD-2 Q1505 Emitter		PB (S-VHS) APC Error Det. 450 mVp-p
VD-1 IC101 Pin 4		PB 2 Vp-p	VD-1 IC101 Pin 9		PB (S-VHS or VHS) 1.8 Vp-p	VD-2 IC171 Pin 7		REC, EE, PB Burst 2 Vp-p
VD-1 IC101 Pin 29 (TP111)		REC, (S-VHS) LP mode 0.8 Vp-p	VD-2 IC141 Pin 2		REC, EE, PB 5.06 MHz Carrier 400 mVp-p	VD-2 IC171 Pin 9		REC, EE (UPPER)-PAL 100 mVp-p (LOWER)-SECAM 200 mVp-p
VD-1 IC101 Pin 29 (TP111)		REC (VHS) LP mode 0.7 Vp-p	VD-2 IC141 Pin 15		REC, EE 500 mVp-p	VD-2 IC171 Pin 11		REC, EE (UPPER)-PAL 0V (LOWER)-SECAM 4 Vp-p
VD-1 IC101 Pin 24 (TP108)		(UPPER) REC (S-VHS) 5.4 MHz FM Carrier R (LOWER) REC (VHS) 3.8 MHz FM Carrier R 1.2 Vp-p	VD-2 IC141 Pin 13		PB (S-VHS) 200 mVp-p			
VP-1 TP181		REC (S-VHS) LP mode 700 mVp-p	VD-2 IC141 Pin 6		PB (S-VHS) 1.5 Vp-p			
VP-1 TP181		REC (VHS) LP mode 550 mVp-p	VD-2 IC141 Pin 54		PB (S-VHS) 1.3 Vp-p			

WAVEFORM OF SERVO

IC351 (LC7418)		⑳	 4.8 V 17.053 kHz	⑦	 REC 2.0 V 3.0 V 24 msce 16 msce
① ③ ④	 5 V 20 msec 20 msec	㉓ ㉔	 3.8 V 0.66 msec = 1514 Hz	⑧	 REC 3.0 V 2.0 V 24 msce 16 msce
⑤ ⑥	 P.B. 0.44 msec 3 V 20 msec	㉚	 3 msec 3 V 40 msec	⑫	 5 V 24 msec 16 msec
⑦	 3.7 V 24 msec 16 msec	㊲	 35 μsec 4.8 V 40 msec	⑮	 3.7 V 24 msec 16 msec
⑨	 5 V 24 msec 16 msec	㊷	 4.8 V 20 msec 20 msec	㉓ ㉖	 3.8 V 0.66 msec = 1514 Hz
⑪	 2.0 msec 3 V 20 msec	㊹	 0.7 Vp-p 4.43 MHz	㉔ ㉕	 50 mV p-p 0.66 msec
⑫		㊻	 3.7 V T = 20 msec	㉗	 3.8 V 1.33 msec = 750 Hz
⑬	 3.8 V 1.33 msec = 750 Hz	**IC352 (LA7124)**		㉘	 20 mV p-p 1.33 msec
⑭	 4.8 V 8.593 kHz	③	 P.B. 40 mV 40 msec	㉙	 200 mV p-p 40 msec
⑯ ㉑	 4.8 V 4.296 kHz	④	 P.B. 1.3 Vp-p 40 msec	㉚	

WF-S3

WAVEFORM OF AUDIO

TEST LOCATION	WAVEFORM	MODE/LEVEL
IC201 Pin 68 (L ch) and Pin 78 (R ch)		REC 0.7 Vp-p AV Input
IC201 Pin 42 (L ch) Pin 23 (R ch)		REC 0.5 Vp-p Modulation Level
IC201 Pin 38 L ch		REC 1.2 Vp-p 1.4MHz Carrier
IC201 Pin 28 R ch		REC 1.2 Vp-p 1.8 MHz Carrier
CN202 Pin 4		REC 100m Vp-p 1.4M/1.8M AF REC
CN202 Pin 3		PB 1.5 Vp-p AF PB
IC201 Pin 56 (L ch) Pin 9 (R ch)		REC/PB 1.1 Vp-p AD Level
IC201 Pin 47 (L ch) Pin 20 (R ch)		REC/PB 1.5 Vp-p Audio Output

NOTE:

Audio input Condition is 1KHz sine-wave signal from AV terminal.

WF-A2

IC301 (μPD75516) SYSTEM CONTROL MPU PIN FUNCTIONS TABLE

NO.	Name	I/O	I/O Signal Function
1	$\overline{\text{TAPE END.S}}$	I	Sensor signal input for tape end detection.
2	A/D REF	I	Reference voltage input for internal A/D conversion circuit. (5 Vdc)
3	VDD		IC power supply input. (5 Vdc)
4	VDD		IC power supply input. (5 Vdc)
5	NOISE ADVANCE P.	O	Pulse for noise band advance in STILL mode.
6	INSERT HIGH	O	"HIGH" output in video signal insert mode. (Models equipped with FE heads.)
7	AF REC	O	"HIGH" output in video signal insert mode, signal to activate FE head.
8	A.DUB	O	"HIGH" output in audio dubbing mode.
9	AUDIO SEL.R	O	Output select signal for stereo audio signals. (ST/L/R/NORMAL).
10	AUDIO SEL.L		
11	INPUT SEL.V	O	Signal for selecting video input signal. (TUNER/EXTERNAL/S.C.)
12	INPUT SEL.A	O	Signal for selecting audio input signal. (TUNER/EXTERNAL/S.C.)
13	S-VHS AUTO/$\overline{\text{OFF}}$	I	S-VHS auto mode selection terminal.
14	BIAS CONTROL	O	Signal for switching full-width erasing head OFF when "HIGH" and ON when "LOW".
15	A REC MUTE	O	Signal to disable output or recording of NORMAL audio.
16	A MUTE	O	Signal to disable audio signal output.
17	NORMAL/$\overline{\text{S-VHS}}$	I	NORMAL (VHS) /S-VHS selection terminal. Normal VHS when "HIGH".
18	$\overline{\text{SV S.DATA}}$	O	Outputs 8-bit × 4 serial data giving operation mode and tracking data, etc., to digital servo IC. CLK is its clock pulse.
19	$\overline{\text{SV S.CLK}}$		
20	4K-PWM	O	Outputs 4 kHz PWM signal for set period at start of high-speed FF/REW.
21	REV HIGH	O	Signal giving skew correction in LP SEARCH mode. (PAL models only)
22	–	–	
23	VD REC	O	Signal indicating recording of video signal in insert mode. (Models equipped with FE head only)
24	FE CONTROL	O	Signal indicating operation of FE head in insert mode. (Models equipped with FE head only)
25	TITL REC	O	Title insert mode indication signal.
26	SPECIAL PLAY	O	Output in special playback modes (R/L-SEARCH, × 2S, STILL, SLOW, F-ADVANCE, A-DUB PAUSE).
27	$\overline{\text{REC}}$	O	Recording indication signal.
28	$\overline{\text{STILL + SLOW}}$	O	"LOW" output in STILL/SLOW mode for control on-screen IC.
29	ANT/$\overline{\text{VIDEO}}$	O	Antenna through or video deck RF output select (Video when LOW).
30	P.B. HIGH	O	Signal indicating playback image output.
31	FF + REW	O	"HIGH" output during FF or REW mode.
32	POWER UP	O	"HIGH" output except when power is off. Indicates that power is ON.
33	GND		IC ground terminal.
34	$\overline{\text{SAFETY SW}}$	I	Input terminal for accidental erasure prevention switch. No operating to recording mode while "LOW" is input.
35	$\overline{\text{SW DATA 3}}$	I	3-bit signal indicating operation position of mechanism.
36	$\overline{\text{SW DATA 2}}$		
37	$\overline{\text{SW DATA 1}}$		
38	–	–	Pull-up (5 Vdc)
39	FL START SW	I	Switch input indicating start of cassette loading or discharge by front mechanism.
40	60 PWM	O	PWM signal output at high speed FF/REW mode.
41	H.SPEED • SEARCH + FF + REW	O	"HIGH" output during SEARCH, FF and REW at high speed mode.
42	AV CONTROL (8PIN)	O	AV terminal (21PIN SOCKET) control signal output.
43	ATR SMPL P	O	Sampling pulse output during auto-tracking operation. (For ATR evaluation)
44	MC-BR	O	Brake signal for capstan motor.
45	MC-F/R	O	Indication signal for capstan motor rotation direction.
46	INSERT $\overline{\text{ON}}$/OFF	I	INSERT function ON/OFF terminal. Function enabled when "LOW".
47	C-FG P.	I	FG pulse input for capstan motor. Signal with frequency of approximately 1 kHz is recognized.
48	T.REEL P.	I	Pulse input for detection of take-up reel table rotation.
49	CTL P.(0/1 CLK)	I	CTL head recording/playback pulse signal input.
50	S.REEL P.	I	Pulse input for detection of supply reel table rotation.
51	$\overline{\text{SSB DATA}}$	I/O	Terminals for communication of mode data with other microprocessors. Data is 8-bit × 12 block serial data. The clock pulse is output from this microcomputer.
52	$\overline{\text{SSB CLK}}$	O	
53	RF SW P.	I	Input of RF switching pulse created by head drum PG.
54	GND	–	IC ground terminal.
55	GND	–	Not used (grounded)
56	–	–	Not used
57	GND	–	IC ground terminal.
58	X1	–	IC clock OSC terminal. Clock frequency is 4 MHz.
59	X2	–	
60	$\overline{\text{RESET}}$	I	Initial reset terminal for IC. Reset when "LOW".
61	0/1 DATA	I	CTL head recording/playback pulse signal input. Used for VISS data detection.
62	ATR $\overline{\text{ON}}$/OFF	I	Auto tracking operation ON/OFF indication signal input. ATR ON when LOW.
63	ENV SW (DOC P.)	I	Video head envelope selection signal input. Used for absorbing (DOC PULSE) STILL noise.
64	–	–	
65	LP HIGH	O	"HIGH" output when tape speed is set to LP mode.
66	LP V • MUTE	O	"HIGH" video mute signal output when tape speed in set to LP mode.
67	–	–	
68	–	–	
69	ML-M	O	Loading motor rotational speed (medium speed) indication signal.
70	ML-L	O	Loading motor rotational speed (low speed) indication signal.
71	ML-R	O	Loading motor rotational direction (REV) indication signal.
72	ML-F	O	Loading motor rotational direction (FWD) indication signal.
73	GND	–	IC ground terminal.
74	JPN/US/PAL	I	Terminal to alter internal specifications for destination areas. (0V input for SP only models, 0.6V input for SP/LP models.)
75	TAPE SPEED	I	Input of result of tape speed determination by digital servo IC.
76	OEM OPTION	I	Terminal to alter internal specifications. (0V input)
77	Hi-Fi ENV	I	AF head envelope detection signal input. (Used for ATR of Hi-Fi models)
78	ENV	I	Video head envelope detection signal input. (Used for ATR)
79	DEW S.	I	Dew sensor input terminal.
80	$\overline{\text{TAPE TOP S.}}$	I	Sensor signal input for tape beginning detection.

P75516-0

IC351 (LC7418) DIGITAL SERVO IC PIN FUNCTIONS TABLE

Pin No.	I/O Terminal Name	I/O	Input/Output Function
1	ROTARY	O	Outputs the head switching control signal for 4-head and 3-head models.
2	H-AMP-SW	O	
3	RF-SW-PULSE	O	Video head switching pulse output.
4	AF-SW-PULSE	O	Audio head (FM) switching pulse output.
5	DL1	I	Dummy V$_D$ insertion position control CR.
6	DL2	I	Dummy V$_D$ insertion position control terminal.
7	CTL-IN	I	Control signal input.
8	REMAK	O	Outputs the control signal re-recording control signal. Three-value output (H, M, L).
9	REC-CTL	O	Recording control signal output. Three-value output (H, OPEN, L).
10	D-P	O	Outputs the drum compensation pulse in the slow mode.
11	D-PG. MM	I	CR for drum PG signal delay.
12	D-PG	I	Drum PG signal input.
13	D-FG	I	Drum FG signal input.
14	DSE	O	Outputs the speed error for drum system speed control. An output making the drum motor stop is delivered when DRUM-ON is "0". The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
15	FHE	O	Outputs the horizontal sync signal of the composite sync signal after F-V conversion (using the drum phase control system). The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
16	DPE		Error output for drum system phase control. The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
17	C-P	O	Outputs the capstan compensation pulse in the slow mode.
18	C-START/STP	O	Outputs the capstan motor start and brake pulses in the slow mode.
19	V$_{DD}$		+ 5V ± 10%
20	CSE	O	Capstan system speed error output. An output making the capstan motor stop is delivered when CAP-ON is "0". The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
21	CPE	O	Capstan system phase reciprocal error output. The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
22	$\overline{\text{F}}$/R	O	Capstan motor forward/reverse control output. "1" sets the reverse mode, and "0" the forward mode.
23	C-FG1	I	Capstan FG signal input.
24	C-FG2	I	2nd capstan FG signal input. Used for stop detection in the intermittent slow mode.
25	EP/LP/SP	O	Recording mode output. Three-value output ("H" is for EP mode, "M" for LP mode and "L" for SP mode).
26	$\overline{\text{SP}}$	O	Recording mode output. "L" is for SP mode.
27	SP	O	Recording mode output. "H" is for SP mode.
28	MC-BR	I	Control input for capstan brake timing.
29	SLOW-TRK-CR	I	CR for slow tracking adjustment.
30	TRK-CR	I	CR for tracking adjustment.
31	D-PH	I	CR for drum compensation timing adjustment in the slow mode.
32	D-WD1	I	
33	D-WD2	I	
34	REF-TRK	O	Outputs the tracking delay input signal.
35	SLOW/STILL	O	Internal mode signal output. "H" in the slow mode.
36	MODE (× 2+STILL)	O	Mode decoding signal output. At the × 2 SPEED mode and starting time of SLOW/STILL mode, output "H" level.
37	INDEX-CLK	O	Outputs the timing for the control signal duty detector.
38	INDEX-DATA	O	Outputs the control signal duty detection results.
39	SV-S • CLK	I	Serial transmission clock pulse input.
40	SV-S • DATA	I	Serial data input terminal.
41	NTSC/$\overline{\text{PAL}}$	I	NTSC/PAL switching input. "H" is for NTSC, "L" for PAL.
42	REF	O	Outputs the internal reference signal.
43	V$_{DD}$		+ 5V supply terminal
44	FSC IN	I	Input for the IC internal system clock pulse. A level of at least 0.3 V$_{p\text{-}p}$ is required. The color subcarrier signal is input by capacitive coupling.
45	V$_{SS}$		Ground
46	C-SYNC	I	Composite sync signal input.
47	ENV SW	I	Head selection signal (PB envelope detection signal) input for 4-head special playback.
48	VD	O	Dummy V$_D$ signal output.

LC7418

IC711 (M50959) TIMER MPU PIN FUNCTIONS TABLE

Pin No.	Port	Input/Output Signal	I/O	Input/Output Function
1	Vcc			+ 5V
2	P6$_5$	TXD	O	DATA signal output to VIDEO TEXT (TELETEXT) MPU.
3	P6$_4$	RXD	I	DATA signal input from VIDEO TEXT (TELETEXT) MPU.
4	P6$_3$	PLL CLK	O	Signal input/output of CLOCK, DATA, CE (chip enable) for PLL tuning system IC.
5	P6$_2$	PLL DATA	I/O	
6	P6$_1$	PLL CE	O	
7	P6$_0$/T	ADJUST	O	Pulse output (32.768kHz/1024 = 32Hz) for clock frequency adjustment.
8	P2$_7$	$\overline{\text{CLK}}$	O	Clock pulse output to the E^2 PROM.
9	P2$_6$	DI	I/O	Data exchange with the E^2 PROM.
10	P2$_5$	$\overline{\text{E}^2\text{ PROM CS1}}$	O	E^2 PROM 1 is accessed when "L".
11	P2$_4$	$\overline{\text{BG}}$/L	O	Transmission system switching ("L" = PAL BG ; "H" = SECAM L).
12	P2$_3$	VIDEO MUTE	O	"H" output during VIDEO MUTE.
13	P2$_2$	TUNER ON	O	"H" output when power is ON and during VPS scanning.
14	P2$_1$	$\overline{\text{AUDIO MUTE}}$	O	"L" output during AUDIO MUTE.
15	P2$_0$	TEXT CLK	O	CLOCK signal output to VIDEO- TEXT (TELETEXT) MPU.
16	P3$_7$/$\overline{\text{Srdy}}$		–	
17	P3$_6$/CLK	$\overline{\text{S.CLK}}$	I	SSB clock pulse input.
18	P3$_5$/Sout	$\overline{\text{S.OUT}}$	O	SSB data output.
19	P3$_4$/Sin	S.IN	I	SSB data input.
20	P3$_3$/ANin	AFT.C	I	AFT.S curve input.
21	P3$_2$/CNTR	H.SYNC	I	Sync. detection signal input for existing channel discrimination. ("L" = Existing Sync.)
22	P3$_1$	SCL	O	Clock pulse output to the VPS decoder IC.
23	P3$_0$	SDA	I/O	Data exchange with the VPS decoder IC.
24	P5$_3$/INT$_1$	$\overline{\text{POWER DOWN}}$	I	Power failure mode set at "L" input.
25	P5$_2$/INT$_2$	IR SIG. IN	I	Remote control signal input.
26	CNVss			Ground.
27	$\overline{\text{RESET}}$			Reset terminal.
28	Xin			6MHz clock terminal.
29	Xout			
30	Xcin			32.768kHz (clock OSC used in the power failure mode)
31	Xcout			
32	Vss			Ground
33	ϕ			
34	P5$_7$	KEY IN4	I	Key inputs
35	P5$_6$	KEY IN3	I	
36	P5$_5$	KEY IN2	I	
37	P5$_4$	KEY IN1	I	
38	Vp	Vp		-30V
39	P5$_1$	STEREO R	O	2-bit signal output for AUDIO OUTPUT SELECT and audio output display indication according to table below.
40	P5$_0$	STEREO L	O	
41	P1$_7$	o	O	Display segment outputs. (Included key-scan output)
42	P1$_6$	n	O	
43	P1$_5$	m	O	
44	P1$_4$	l	O	
45	P1$_3$	k	O	
46	P1$_2$	j	O	
47	P1$_1$	i	O	
48	P1$_0$	G9	O	Display grid outputs.
49	P0$_7$	G8	O	
50	P0$_6$	G7	O	
51	P0$_5$	G6	O	
52	P0$_4$	G5	O	
53	P0$_3$	G4	O	
54	P0$_2$	G3	O	
55	P0$_1$	G2	O	
56	P0$_0$	G1	O	
57	P4$_7$	h	O	Display segment outputs. (Included key-scan output)
58	P4$_6$	g	O	
59	P4$_5$	f	O	
60	P4$_4$	e	O	
61	P4$_3$	d	O	
62	P4$_2$	c	O	
63	P4$_1$	b	O	
64	P4$_0$	a	O	

NOTE : Clock frequency check with ADJUST terminal of Pin 7.

1. Connect the anode of the diode (IS188 etc.) to Pin 44 (key-scan l) and the cathode to Pin 37 (KEY IN 1). Then ground the Pin 27 ($\overline{\text{RESET}}$) terminal once and reset the microcomputer.
2. The clock frequency (32 Hz) can be observed with the ADJUST terminal of Pin 7 according to the servicing above.
3. In order to set normal function mode again, ground the terminal of Pin 27 ($\overline{\text{RESET}}$) once and reset the microcomputer after removing the diode connected to Pins 44 and 37.

PORT \ MODE	NORMAL	MAIN	SUB	STEREO
STEREO R (Pin 39)	L	L	H	H
STEREO L (Pin 40)	L	H	L	H

P50959F0

VD-1 BOARD VIDEO CIRCUIT VARIOUS TERMINAL VOLTAGE TABLE

Voltage measuring condition:
1. S-VHS mode and SP mode
2. Input and output the colour bar signal to/from the EURO AV (AV1) terminal.

A voltage is basically measured in the REC and PLAY modes under the above condition. If two kinds of voltage are described in the REC or PLAY column, the left side shows the S-VHS mode and the right side shows the NORMAL VHS mode respectively.

IC No.	PIN No.	REC MODE	PLAY MODE	IC No.	PIN No.	REC MODE	PLAY MODE	IC No.	PIN No.	REC MODE	PLAY MODE
IC101 Y PROCESS	1	5.0	5.0	IC101 Y PROCESS	34	2.5	2.4	IC102 S VHS NL SUB EMPHASIS	15	2.8	2.8
	2	0.6	0.6		35	3.1	3.1		16	2.0	2.0
	3	1.2	0.1		36	2.3	2.3		17	2.0	2.0
	4	2.0	1.7		37	2.7	2.6		18	2.0	2.0
	5	3.0	2.9		38	2.9	2.9	IC103 1H CCD	1	9.2	9.2
	6	1.8	1.7		39	4.9	3.0		2	0.0	0.0
	7	2.2	2.2		40	2.9	2.9		3	5.0	4.9
	8	4.9	4.9		41	2.6	2.3		4	3.4	3.4
	9	2.9	2.9		42	1.9	2.0		5	3.3	3.3
	10	2.7	2.6		43	3.5 3.3	0.0		6	2.5	2.5
	11	3.3	3.3		44	2.7	2.7		7	1.4	1.4
	12	4.5 3.5	4.5 3.5		45	2.5 2.6	4.4		8	4.7	4.7
	13	3.2	2.3		46	2.5	2.3	IC104 SWITCH	1	2.2	2.2
	14	0.0	0.0		47	3.2	3.1		2	0.1	0.1
	15	3.2	3.2		48	1.7	2.5		3	2.2	2.2
	16	0.4	0.4		49	0.0 2.5	0.0 2.5		4	0.0	0.0
	17	1.5	1.5		50	1.4	1.4		5	2.0	2.0
	18	1.4	1.4		51	0.0	0.0		6	5.0	5.0
	19	5.0	5.0		52	3.4	3.3		7	1.5	1.4
	20	3.4	3.3	IC102 S VHS NL SUB EMPHASIS	1	2.0	2.0		8	0.0	0.0
	21	0.0	0.0		2	0.8	5.0	IC105 0.5H CCD	1	9.2	9.2
	22	3.1	2.9		3	3.4	3.4		2	0.0	0.0
	23	4.0	4.0		4	3.4	3.4		3	5.0	5.0
	24	3.1	2.5		5	4.9	4.9		4	3.4	3.4
	25	0.0	4.4		6	2.2	2.2		5	3.4	3.4
	26	3.0	3.3		7	2.0	2.0		6	2.4	2.4
	27	2.2	2.2		8	5.0	5.0		7	1.4	1.4
	28	5.0	4.1		9	1.4	1.4		8	4.7	4.7
	29	2.4	2.7		10	2.9	2.8				
	30	2.3	2.7		11	2.9	2.8				
	31	0.3	0.0		12	2.9	2.8				
	32	3.0	3.0		13	0.0	0.0				
	33	3.4	3.4		14	2.8	2.8				

IC No.	PIN No.	REC MODE	PLAY MODE	IC No.	PIN No.	REC MODE	PLAY MODE	IC No.	PIN No.	REC MODE	PLAY MODE
IC106 1H CCD	1	0.0	0.0	IC109 LP SKEW SWQUENCE COMPEN.	1	2.4	2.4	IC111 SWITCH	4	0.6	0.0
	2	5.0	4.9		2	2.8	2.8		5	1.7	1.7
	3	1.4	1.4		3	3.4	3.3		6	1.7	1.7
	4	9.2	9.2		4	5.0	5.0		7	3.3	1.2
	5	1.0	1.6		5	3.1	3.1		8	2.5	2.4
	6	1.4	1.4		6	2.5	2.5		9	0.0	0.0
	7	5.0	5.0		7	0.0	0.0		10	2.4	2.4
	8	5.2	5.3		8	2.7	2.7				
IC107 SWITCH	1	2.5	2.0		9	0.5	0.5				
	2	0.8	2.7		10	3.3	3.2				
	3	1.0	1.1		11	3.6	3.5				
	4	0.0	0.0		12	3.3	3.2				
	5	0.7	0.7		13	3.3	3.2				
	6	1.8	1.8		14	4.9	4.9				
	7	1.5	1.5 4.1		15	5.0	5.0				
	8	2.5	2.5		16	5.0	5.0				
	9	2.5	2.5		17	2.5	2.5				
	10	0.0	0.0		18	0.6	0.6				
	11	2.1	2.1		19	2.4	2.4				
	12	4.9	4.9		20	2.5	2.5				
	13	5.0	5.0		21	2.4	2.4				
	14	2.2	2.2		22	0.8	0.8				
	15	0.0	0.0	IC110 SWITCH	1	2.3	2.3				
	16	2.8	2.5		2	0.1	0.1				
IC108 Correlation Detector	1	5.4	5.4		3	3.0	3.0				
	2	0.0	0.0		4	0.0	0.0				
	3	5.4	5.4		5	3.0	3.0				
	4	0.0	0.0		6	5.0	5.0				
	5	5.4	5.4		7	2.2	2.2				
	6	0.0	0.0		8	0.0	0.0				
	7	4.0	4.0	IC111 SWITCH	1	2.5	2.4				
	8	9.2	9.2		2	5.0	5.0				
					3	2.4	2.5				

TR No.	PIN No.	REC MODE	PLAY MODE	TR No.	PIN No.	REC MODE	PLAY MODE	TR No.	PIN No.	REC MODE	PLAY MODE
B1001 SWITCH	B	0.0	0.0	B1014 SWITCH	B	3.7 0.0	3.7 0.0	B1046 SWITCH	B	5.0 0.0	5.0 0.0
	C	0.0	0.0		C	0.0 0.0	0.0 0.0		C	0.0 0.7	0.0 3.8
	E	0.0	0.0		E	0.0 0.0	0.0 0.0		E	0.0 0.0	0.0 0.0
B1002 SWITCH	B	0.9 5.0	0.9 5.0	B1015 SWITCH	B	0.0 0.0	0.0 0.0	B1047 SWITCH	B	5.0 0.0	5.0 0.0
	C	0.0 0.0	0.0 0.0		C	3.7 0.0	3.7 0.0		C	0.0 0.5	0.0 3.5
	E	0.0 0.0	0.0 0.0		E	0.0 0.0	0.0 0.0		E	0.0 0.0	0.0 0.0
B1003 SWITCH	B	0.9 5.0	0.9 5.0	B1016 SWITCH	B	5.0	5.0	B1048 SWITCH	B	0.0	0.0
	C	3.5 0.0	3.5 0.0		C	0.0	0.0		C	1.8	1.6
	E	0.0 0.0	0.0 0.0		E	0.0	0.0		E	0.0	0.0
B1006 SWITCH	B	3.9	0.0	B1018 SWITCH	B	0.9 5.0	0.9 5.0	B1049 SWITCH	B	0.0	0.0
	C	0.0	4.5		C	5.0 0.0	5.0 0.0		C	1.8	1.6
	E	0.0	0.0		E	5.0 5.0	5.0 5.0		E	0.0	0.0
B1007 SWITCH	B	3.1	3.0	B1019 SWITCH	B	4.6 0.5	4.6 0.0	B1101 SWITCH	B	0.0	0.0
	C	1.3	1.5		C	0.9 5.0	0.9 5.0		C	4.9	4.9
	E	0.0	0.0		E	5.0 5.0	5.0 5.0		E	0.0	0.0
B1008 SWITCH	B	0.0	0.0	B1020 SWITCH	B	0.0 0.0	0.1 3.9	B1102 SWITCH	B	3.9	0.1
	C	0.0	0.0		C	4.3 4.3	4.3 0.0		C	0.0	0.9
	E	0.0	0.0		E	0.0 0.0	0.0 0.0		E	0.0	0.0
B1009 SWITCH	B	0.0	0.0	B1021 SWITCH	B	0.0 0.0	0.0 3.4	B1201 SWITCH	B	0.0 0.0	0.0 0.0
	C	0.0	0.0		C	4.6 0.5	4.6 0.0		C	0.0 0.0	0.0 0.0
	E	0.0	0.0		E	0.0 0.0	0.0 0.0		E	0.0 0.0	0.0 0.0
B1010 SWITCH	B	0.0	0.0	B1022 SWITCH	B	5.2 5.1	5.1 5.1	B1202 SWITCH	B	3.4 0.0	3.7 0.0
	C	0.0	0.0		C	0.0 0.0	0.0 0.0		C	0.0 0.0	0.0 0.0
	E	0.0	0.0		E	0.0 0.0	0.0 0.0		E	0.0 0.0	0.0 0.0
B1011 SWITCH	B	0.9 5.0	0.9 5.0	B1023 SWITCH	B	0.6	5.0	B1203 SWITCH	B	0.3 3.3	0.7 3.3
	C	0.7 0.0	0.1 0.0		C	3.9	0.0		C	0.0 0.0	0.0 0.0
	E	0.0 0.0	0.0 0.0		E	0.0	0.0		E	0.0 0.0	0.0 0.0
B1012 SWITCH	B	0.7	5.0	B1024 SWITCH	B	0.0 0.0	5.0 5.0	B1204 SWITCH	B	0.8 0.0	0.8 0.0
	C	3.6	0.0		C	0.0 0.0	0.0 0.0		C	0.0 0.0	0.0 0.0
	E	0.0	0.0		E	0.0 0.0	0.0 0.0		E	0.0 0.0	0.0 0.0
B1013 SWITCH	B	0.9 5.0	0.9 5.0	B1045 SWITCH	B	0.0 0.5	0.0 3.5	B1205 SWITCH	B	0.7 3.3	0.7 3.3
	C	5.0 5.0	5.0 5.0		C	0.6 0.6	4.9 0.0		C	0.8 0.0	0.8 0.0
	E	3.6 3.9	4.6 4.6		E	0.0 0.0	0.0 0.0		E	0.0 0.0	0.0 0.0

TR No.	PIN No.	REC MODE	PLAY MODE	TR No.	PIN No.	REC MODE	PLAY MODE
B1206 SWITCH	B	0.0 0.0	0.0 0.0				
	C	0.7 3.3	0.7 3.3				
	E	0.0 0.0	0.0 0.0				
B1207 SWITCH	B	0.0	0.0				
	C	4.9	4.9				
	E	0.0	0.0				
B1208 SWITCH	B	4.3 0.0	4.3 0.0				
	C	0.0 0.0	0.0 0.0				
	E	0.0 0.0	0.0 0.0				
B1209 SWITCH	B	4.8 0.0	4.8 0.0				
	C	1.5 0.1	1.5 0.0				
	E	5.0 0.0	5.0 0.0				
B1210 SWITCH	B	0.0 0.0	0.0 0.0				
	C	4.8 0.0	4.7 0.0				
	E	0.0 0.0	0.0 0.0				
B1212 SWITCH	B	0.0	0.0				
	C	1.8	4.2				
	E	0.0	0.0				
B1301 SWITCH	B	4.2	4.2				
	C	0.0	0.0				
	E	0.1	0.0				
B1302 SWITCH	B	5.0 0.0	4.9 0.0				
	C	0.0 0.0	0.0 0.0				
	E	0.0 0.0	0.0 0.0				
B1303 SWITCH	B	4.2	4.2				
	C	0.0	0.0				
	E	3.7	3.7				

TR No.	PIN No.	REC MODE	PLAY MODE	TR No.	PIN No.	REC MODE	PLAY MODE	TR No.	PIN No.	REC MODE	PLAY MODE
Q1001 SWITCH	B	0.0	0.0	Q1047 BUFFER	B	0.6	4.9 2.5	Q1103 BUFFER	B	2.7	2.6
	C	5.0	5.0		C	0.0	0.0 0.0		C	0.0	0.0
	E	0.0	0.0		E	0.7	3.4 3.1		E	3.3	3.3
Q1002 SWITCH	B	0.0	0.0	Q1048 BUFFER	B	0.6	3.8 3.9	Q1104 BUFFER	B	0.6	0.5
	C	5.0	4.9		C	0.0	0.0 0.0		C	0.0	0.0
	E	0.0	0.0		E	0.7	3.4 3.1		E	1.2	1.1
Q1003 SWITCH	B	0.0	0.0	Q1049 AMP	B	0.3	1.9	Q1151 BUFFER	B	1.8	1.8
	C	4.9	4.9		C	0.6	3.7		C	0.0	0.0
	E	0.0	0.0		E	0.0	1.2		E	2.4	2.4
Q1004 BUFFER	B	2.7	2.7	Q1050 AMP	B	0.3	2.4	Q1152 BUFFER	B	1.4	1.4
	C	5.0	5.0		C	0.7	3.4		C	0.0	0.0
	E	2.1	2.0		E	0.0	1.7		E	2.1	2.1
Q1005 AMP	B	1.6	1.6	Q1051 BUFFER	B	1.8	1.6	Q1153 BUFFER	B	2.1	2.1
	C	2.7	2.7		C	5.0	5.0		C	0.0	0.0
	E	1.0	1.0		E	1.4	1.1		E	2.7	2.7
Q1006 BUFFER	B	1.7	1.7	Q1052 BUFFER	B	1.4	1.1	Q1154 BUFFER	B	0.7	0.7
	C	5.0	5.0		C	0.0	0.0		C	0.0	0.0
	E	1.0	1.0		E	1.7	1.7		E	1.3	1.3
Q1007 BUFFER	B	0.8	0.7	Q1053 BUFFER	B	1.8	1.6	Q1155 AMP	B	1.8	1.8
	C	0.0	0.0		C	5.0	5.0		C	3.9	3.8
	E	1.4	1.4		E	1.4	1.0		E	1.2	1.2
Q1008 BUFFER	B	2.0	1.9	Q1054 BUFFER	B	0.0	0.0	Q1156 BUFFER	B	3.9	3.8
	C	0.0	0.0		C	0.0	0.0		C	9.2	9.2
	E	2.6	2.6		E	0.7	0.7		E	3.3	3.2
Q1009 BUFFER	B	1.7	1.3	Q1056 BUFFER	B	0.0	1.7	Q1191 BUFFER	B	2.0	2.0
	C	0.0	0.0		C	0.6	5.0		C	5.0	5.0
	E	2.3	1.9		E	0.7	1.1		E	1.4	1.4
Q1045 AMP	B	0.3	2.5	Q1101 BUFFER	B	0.6	0.9	Q1192 BUFFER	B	1.4	1.4
	C	0.6	3.3		C	0.0	0.0		C	0.0	0.0
	E	0.0	1.7		E	1.3	1.5		E	2.1	2.1
Q1046 AMP	B	0.2	1.5	Q1102 BUFFER	B	1.5	1.5	Q1201 BUFFER	B	1.6	1.6
	C	0.6	3.5		C	0.0	0.0		C	5.0	5.0
	E	0.6	0.8		E	2.1	2.1		E	0.9	0.9

TR No.	PIN No.	REC MODE	PLAY MODE	TR No.	PIN No.	REC MODE	PLAY MODE	TR No.	PIN No.	REC MODE	PLAY MODE
Q1202 AMP	B	1.6	1.6	Q1213 AMP	B	3.6	3.6	Q1225 BUFFER	B	3.0	3.0
	C	3.5	3.5		C	6.3	6.3		C	9.2	9.2
	E	0.9	0.9		E	2.9	2.9		E	2.3	2.3
Q1203 BUFFER	B	3.5	3.5	Q1214 BUFFER	B	2.9	2.9	Q1226 AMP	B	3.0	3.0
	C	5.0	5.0		C	9.2	9.2		C	4.6	4.6
	E	2.8	2.8		E	2.2	2.2		E	2.3	2.3
Q1204 AMP	B	2.7	2.7	Q1215 AMP	B	2.3	2.3	Q1227 BUFFER	B	4.6	4.5
	C	9.2	9.2		C	4.0	4.0		C	9.2	9.2
	E	2.0	2.0		E	1.6	1.6		E	3.9	3.9
Q1205 BUFFER	B	4.1	4.1	Q1216 BUFFER	B	3.4	3.3	Q1228 AMP	B	4.9	4.9
	C	9.2	9.2		C	9.2	9.2		C	3.6	3.6
	E	3.6	3.6		E	2.8	2.7		E	5.7	5.6
Q1206 AMP	B	3.7	3.6	Q1217 AMP	B	3.6	3.6	Q1229 BUFFER	B	4.1	3.9
	C	6.4	6.4		C	6.3	6.3		C	9.2	9.2
	E	2.8	2.9		E	2.9	2.9		E	3.4	3.3
Q1207 BUFFER	B	2.8	2.8	Q1218 BUFFER	B	3.5	3.5	Q1301 BUFFER	B	2.9	2.9
	C	9.2	9.2		C	9.2	9.2		C	0.0	0.0
	E	2.2	2.2		E	2.9	2.9		E	3.5	3.5
Q1208 BUFFER	B	2.8	2.7	Q1219 BUFFER	B	2.0	2.0	Q1304 AMP	B	1.1	1.1
	C	9.2	9.2		C	9.2	9.2		C	3.9	3.9
	E	2.1	2.1		E	1.4	1.3		E	0.5	0.5
Q1209 AMP	B	2.9	2.9	Q1220 BUFFER	B	4.1	4.1	Q1305 BUFFER	B	2.2	2.2
	C	4.3	4.3		C	9.1	9.2		C	0.0	0.0
	E	2.2	2.2		E	3.4	3.5		E	2.8	2.8
Q1210 BUFFER	B	4.3	4.3	Q1221 AMP	B	2.9	2.9	Q1306 AMP	B	2.1	2.0
	C	9.2	9.2		C	4.1	4.1		C	5.0	5.0
	E	3.7	3.6		E	2.2	2.2		E	1.4	1.3
Q1211 BUFFER	B	4.0	4.1	Q1223 BUFFER	B	3.1	3.1	Q1307 BUFFER	B	3.1	3.1
	C	9.2	9.2		C	9.2	9.2		C	1.2	1.2
	E	3.4	3.5		E	2.4	2.4		E	3.8	3.8
Q1212 AMP	B	4.9	4.9	Q1224 BUFFER	B	1.1	1.1	Q1381 BUFFER	B	0.0	2.1
	C	3.6	3.6		C	0.0	0.0		C	0.7	5.0
	E	5.6	5.6		E	1.7	1.8		E	0.9	1.5